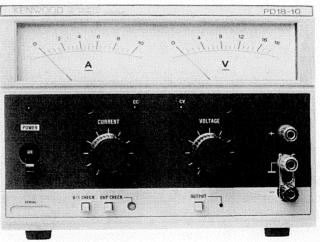


CONSTANT-VOLTAGE/CURRENT POWER SUPPLY

PD18-10(D) PD35-10(D)

SERVICE MANUAL REVISED EDITION

KENWOOD CORPORATION



WARNING

The following instructions are for use by qualified personnel only. To avoid electric shock, do not perform any servicing other than contained in the operating instructions unless you are qualified to do so.

SAFETY

Before connecting the instrument to a power source, carefully read the following information, then verify that the proper power cord is used and the proper line fuse is installed for power source. If the power cord is not applied for specified voltage, there is always a certain amount of danger from electric shock.

Line voltage

This instrument operates using ac-power input voltages that 100/120/220/240 V at frequencies from 50 Hz to 60 Hz.

Power cord

The ground wire of the 3-wire (for 120 V operation; 2-wire) ac power plug places the chassis and housing of this instrument at earth ground. Do not attempt to defeat the ground wire connection or float this instrument; to do so may pose a great safety hazard.

The appropriate power cord is supplied by an option that is specified when the instrument is ordered.

Warning

If groundings, especially points $\frac{1}{V}$ (V_G) and $\frac{1}{V}$ (I_G), are short-circuited during servicing, it could lead to pattern damage due to large amount of current flow on the PCB. Take appropriate care.

CONTENTS

SPECIFICATIONS	3
BLOCK DIAGRAM	5
CIRCUIT DESCRIPTION	6
ADJUSTMENT	10
TROUBLESHOOTING	13
PARTS LIST	16
SCHEMATIC DIAGRAM	28
P.C. BOARD	
DISASSEMBLY	
SEMICONDUCTORS	

SPECIFICATIONS

	Model PD	-	18-10 (D)	35-10 (D)	
Out	put				
0	utput voltage 10-positions		0 to 18 V	0 to 36 V	
Re	esolution (theoretical)		3.1 mV	6.2 mV	
0	utput current 1-position		0 to 10 A	0 to 10 A	
Re	esolution (theoretical)		15 mA	15 mA	
Volt	age regulation (CV)				
W	ith input changes of ±10%	ote 1)	0.005%	+1 mV	
W	ith load changes of 0 to 100%	ote 1)	0.005%	+1 mV	
Ri	pples/noises (10 Hz to 1 MHz) rms No	ote 2)	0.5 m	V rms	
Tı	ransient response, (standard value)		50 μs,	typical	
Te	emperature characteristic, (standard value)	100 ppm/s		
R	emote control resistance/voltage		approx. 0 to 10		
Curi	rent regulation (CC)				
W	/ith input changes of ±10%		1 mA	1 mA	
W	/ith load changes of 0 to 100%		5 mA	5 mA	
Ri	pples/noises (10 Hz to 1 MHz) rms No	ote 2)	3 mA rms	3 mA rms	
R	emote control resistance/voltage		approx. 0 to 10		
	ection				
0	peration		turns off po	wer switch	
T	emperature detection		100°C		
0	vervoltage protection level (standard value	e)	15 to 110% of rated output voltage		
Met	er and indications				
٧	oltmeter (class 2.5) F.S		18 V	36 V	
Α	mmeter (class 2.5) F.S		10 A	10 A	
type	Voltage at digital display (Auto range)		3-1/2 digits 19.99 V, 19 ± (0.1% rdg + 1 digit) 23°C		
Ū.	Current at digital display (Fix. range)		3-1/2 digits 19.99 A (FS 23°C±5°C, Les	s), ±(0.5% rdg+1 digit) s than 80% RH	
In	dication of constant voltage operation		CV green	LED lights	
In	dication of constant current operation		.CC red LI	ED lights	
In	dication of output		OUTPUT red LED lig	hts when turned on	
Fun	ction				
0	utput switch	112 112	Turns on and (preset voltage indicated w		
V	oltage/current check switch		Preset voltage and current indicated with meters during on time		
0	vervoltage preset (OVP)		Indicates the over voltage protection level on the voltmeter during on time		
Remote sensing			Via the rear panel senser terminal		
Series control			Master/slave control		
Parallel control			Master/sla	ve control	
	rating conditions				
	emperature		0°C to	40°C	
Humidity			Less than 80%		
Cooling			Fan		
	utput polarity		Plus or minus		
Withstand voltage to ground			± 250	VDC	

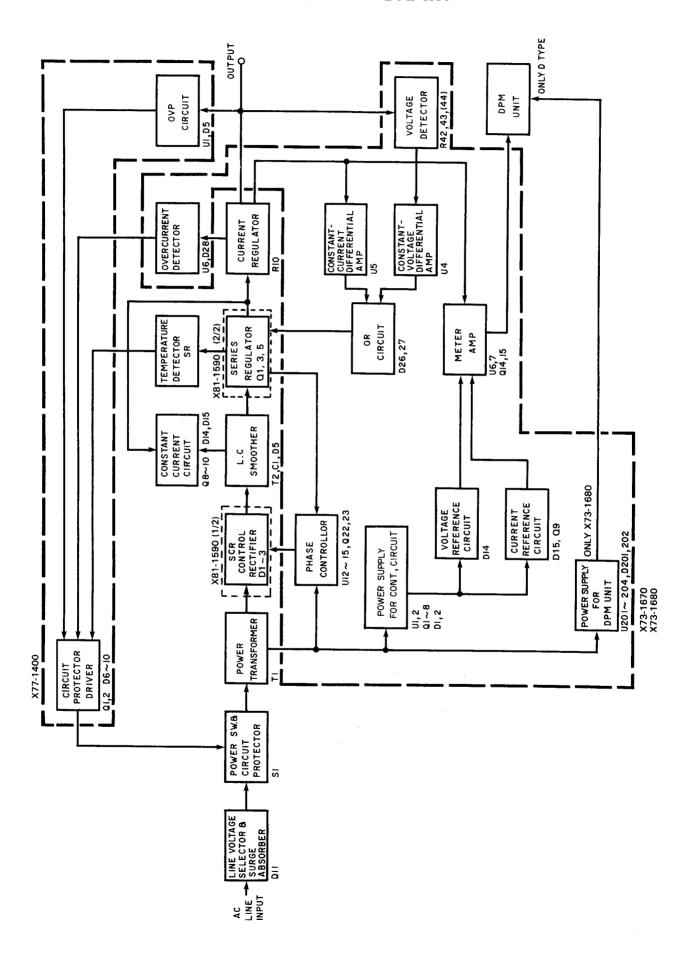
SPECIFICATIONS

Mode	PD .	18-10 (D)	35-10 (D)
Insulation resistance			
Chassis-input line		30 MΩ or mo	ore at 500 VDC
Chassis-output line		20 MΩ or mo	ore at 500 VDC
Power supply			
Input voltage		100/120/220/240 VAC±1	10% , 1ϕ selectable internally
D	AC 100 V/V	Approx. 360 W	Approx. 560 W
Power consumption (at	AC 100 V)	Approx. 530 VA	Approx. 830 VA
Dimensions and weight			
	(W)	208	208
Enclosure dimensions	(H)	147	147
(mm)	(D)	300	300
	(W)	208	208
Maximum dimensions	(H)	168	168
(mm)	(D)	346 (355)	346 (361)
Weight		Approx. 12 kg	Approx. 14 kg
Accessories			
Instruction manual		1	1
· la	100 V, 120 V area	2 or 3-core AC cable, 2 m	2 or 3-core AC cable, 2 or 2.5 m
Input power cord	220 V, 240 V area	3-core AC	cable, (2 m)
Canada sata	100 V, 120 V area	NONE	1
Connector retainer	220 V, 240 V area	NONE	NONE
F	100 V, 120 V area	7 A×2	12 A×2
Fuse	220 V, 240 V area	4 A×2	6 A×2

Note: 1. Measured via the sensing terminal.
2. Measured with plus or minus grounded.

[■] Circuit and ratings are subject to change without notice due to developments in technology.

BLOCK DIAGRAM



DESCRIPTION OF BLOCK DIAGRAM

1. Voltage selector and surge absorber.

Selects rated input voltage and limits external noise.

2. Power switch (circuit protector)

This function as a power switch, and breaks the power supply in event of an accident in the power source.

3. Power transformer

Provides auxiliary windings to operates the main and accessory circuits in the transformer.

4. SCR control rectification circuit

A rectification circuit to control the DC level synchronized with AC, with the gate pulse from the phase control circuit.

5. L, C smoothing circuit

Averages the rectified output from the choke coil and capacitor. The choke coil limits transient current for a high power factor and low ripple.

6. Phase control circuit

Generates a trigger pulse AC synchronized with the SCR control rectification circuit to maintain the $V_{\it CE}$ of the series transistors at a constant voltage.

7. Series control circuit

Used to control high output with a small signal by Darlington connecting the high output power transistor.

8. Current detecting circuit

A stable detection voltage is obtained by effecting adequate derating, using resistor with a low temperature factor.

9. Voltage detecting circuit

A stable detection voltage is obtained using a highly precise metal oxide film resistor with a low temperature factor.

10. CC error (differential) amp

A highly precise amplifier which uses a high-gain, low-drift OP Amp and compares output from the current detecting circuit with the current reference voltage.

11. CV error (differential) amp

A highly precise amplifier which uses a high-gain, low-drift OP Amp and compares output from the voltage detecting circuit with the voltage reference voltage.

12. OR circuit

Selects automatically one (using) the OR circuit from the CV or CC amp depending on output and setting.

13. Circuit power source

Supplies regulated DC voltage to operate the control circuit and provides a protection function.

14. Voltage reference circuit

This circuit is within the control power source feedback loop, and stably drives the temperature compensation zener diode.

15. Current reference circuit

Drives the temperature compensation zener diode using the constant current circuit to provide a stable output.

16. OVP circuit

Detects output voltage within a range of 15%-110% of the rated output voltage, according to the external overvoltage setting.

17. Overcurrent detecting circuit

Detects when the current reaches a level of 125% of the rated current, using the signal from the current detecting circuit.

18. Temperature detecting switch

Detects when the heat sink of series transistor becomes 100 °C with the thermal relay.

19. Constant-current circuit

A discharge circuit for series transistor leakage current and the output capacitor.

20. Circuit protector drive circuit

Drives the protector with the signals that come from the respective detecting circuits. It provides a constant and discharge circuit to minimize influence from small noise, etc.

21. Meter amp

Selects output voltage, voltage or reference voltage with the V/I, OUTPUT and OVP and passes it through the buffer amp to provide stablized meter output.

1. MAIN POWER SOURCE (X81-1590)

The AC input voltage is rectified by D1-D3, and the output smoothed by the choke coils T2 and C1. The thyristors D1 and D2 are controlled in the phase control circuit. The rectified voltage goes through the series control transistors Q1, 3, 5 and current detecting resistor R10, and is supplied to the output +OUT terminal. The -OUT terminal goes through D6 and returns to the recitification circuit.

2. REFERENCE VOLTAGE CIRCUIT (X73-1670), (X73-1680)

This circuit generates the control circuit power source and a variable reference voltage for voltage and current (V_{ref}, I_{ref}) . The AC voltage is recitified by D1 and, a constant voltage of ± 15 V is generated in the constant voltage circuit which consists of Q1-Q8, U1 and D14.

The reference voltage of ± 15 V is generated by the zener diode D14.

-15~V is generated by the error amplifier U1 (1/2), reference voltage (D14) and the dividing resistors R20 and R21.

 $+\,15~V$ is generated by the error amplifier U1 (2/2) and dividing resistors R9 and R10.

The GND of the ± 15 V is indicated by $\frac{1}{V}$ V_G on the circuit diagram, and is connected to the + OUT terminal. The power source of this differential amplifier U1 is supplied by the zener diodes D6 and D9.

 V_{ref} is the variable reference voltage for constant voltage control, and the V_{ref} voltage (0-10 V) is output between the rear terminals 3 - 5 from U3 (2/2), VR1 $\boxed{VOLTAGE}$.

 I_{ref} is the variable reference voltage for constant current control, and the V_{ref} voltage (0-10 V) is output to the rear terminals (8) - (11) from U3 (1/2), VR2 CURRENTI.

3. VOLTAGE/CURRENT CONTROL CIRCUIT (See Fig. 2)

With the floating type of voltage control, the control circuit is controlled using the +OUT terminal as a reference GND. The GND of the control power source $\pm 15 \text{ V} (\frac{1}{V}\text{V}_c)$ is therefore of equal potential to the +OUT terminal.

The +OUT terminal voltage and a voltage divided by the voltage detecting resistors R42 and R43 are applied to the voltage control feedback amplifier U4.

Both input terminals of U4 are operated to keep the same potential.

The output from the feedback amplifier U4 goes through D26, is amplified by Q12 and Q13, passes through Q7 (Y87), and drives the base of the next stage current amplification circuit Q1, 3, 5. The voltage at both ends of the constant current detecting resistor R10 (0.036 ohms, 40 W) is used as a reference for the next constant current operation.

This point is the GND during constant current operation, is indicated by $\frac{1}{3} I_G$ on the circuit diagram, and becomes the reference point.

When the output current I₀ flows, the voltage produced in the current detecting resistor R10 is applied to the control amplifier U5. The voltage divided to I_{ref} voltage feedback by R45 and R46 is applied to U5.

When the voltage at both ends of R10 exceeds this divided voltage (R45 and R46), U5 is operated to drive as the constant current through D27.

The output from U5 drives Q1, 3, 5 (series regulators) through the same route as during constant voltage operation. When the current exceeds the constant current setting value, the operation of the feedback amplifier circuit U4 is simultaneously stopped, and the D26 route is interrupted. Namely D26 and D27 are control OR circuits.

4. METER CIRCUIT

The voltmeter indicating circuit detects voltage from the +OUT terminal, which goes through U2 (2/2) (X77), the OVP CHECK S3b switch, U6 (1/2) (X73), the OUTPUT ON/OFF switch, the V/I CHECK switch, meter amp U7 (2/2) and is applied to the voltmeter.

During V/I CHECK operation, the V_{ref} voltage is applied directly to the meter amp U7 (2/2).

The voltage detected by the current detecting resistor R10 for the ammeter circuit goes through the V/I CHECK switch and is applied to the ammeter amp U7 (1/2).

During V/I CHECK, the I_{ref} voltage is applied directly to the meter amp U7 (1/2). Q1, 3, 5 (series regulators) are controlled by Q10, Q12, Q13 (X73) and Q7 (Y86), by operating the OUTPUT ON/OFF switch, to turn output voltage ON and OFF.

5. OVP CIRCUIT AND OCP CIRCUIT

The D5 (zener diode) (X77) reference voltage that is divided with VR1 and the +OUT terminal voltage divided by R3, R4 is applied to the OVP voltage detecting comparator U1 (1/2) (X77). When the output voltage exceeds the voltage setting of VR1 (OVP setting VR), the output of U1 is inverted. The inverted output goes through D8, Q1 and D9, drives thyristor D10 and turns the breaker switch S1 (APG4) OFF.

The reference (GND) of the OVP circuit is the same as the + OUT terminal V_{σ} of the voltage control circuit.

The detecting voltage generated by the current detecting resistor R10 and the reference voltage of D28 (zener diode) (X73) is applied to the OCP current detecting comparator U6 (2/2) (X73).

If an excessive amount of current flows (overcurrent), the output of U6 (2/2) is inverted, it goes through D7, Q1 and D9 to drive the thyristor D10 and turns the breaker switch S1 (APG 4) OFF.

Furthermore, the thermal relay provided on the heat sink to prevent overheating of the series regulator transistor detects abnormal temperature rise, and turns the breaker switch S1 OFF through D6. (X77-1400)

The OVP circuit, OIP circuit and overheating prevention protective circuit drive the breaker switch S1 with the OR circuit that consists of D6, D7 and D8. (X77-1400)

6. PHASE CONTROL CIRCUIT (X73-1680)

The PD series power source features a phase control circuit to control the thyristors D1 and D2 (X81-1590) of the main power source rectifying bridge, in order to minimize power loss of the series control transistors (Q1, 3, 5) by maintaining the voltage between the Q1, 3, 5 collectors and emitters, regardless of load. The GND of this phase control circuit consists of the emitter of the series control transistors Q1, 3, 5, with an independent floating circuit from the unit power source.

A stable ± 15 V is generated for the phase control circuit power source by U10 and U11. A sawtooth wave that is synchronized with the AC power source line is generated by D42, D43 and U12. This sawtooth wave is applied to U13 (2/2). (See Fig. 3)

The collector voltage (V_{CE} detecting voltage) of the series control transistor is applied to the error amplifier U13 (1/2). The DC voltage of U13 (1/2) is added to the sawtooth wave of U12 (2/2) and applied to the input of U13 (2/2). The pulse width modulated (PWM) output of U13 (2/2) is finely differentiated by C64, etc., to drive the one shot multi U14

The output of U14 (trigger gate pulse) is separated from the GND of the phase control circuit, and amplified by Q22 and Q23 to drive the thyristors (D1 and D2).

Note: GND indication of respective circuits

Case \downarrow $\lor_{\sigma} \stackrel{\downarrow}{\lor}$ \downarrow \downarrow

Unit GND (Case or Chassis) Voltage control circuit GND

Current control circuit GND (one end – point "a" of current detecting resistor R10) Phase control circuit GND (emitter point of series control transistors Q1-Qn)

Caution:

Do not short the insulation to the GND of the respective circuits when repairing breakdowns.

This may result in burning of the wiring and/or printed circuit board.

7. DPM UNIT (D type only)

The digital panel meter unit consists of the voltage indicator circuit and current indicator circuit, which both function the same electrically.

U1 (U31) is the 3-1/2 digit indication A/D converter, with a 7 segment LED driver incorporated. U2 (U32) generates the reference voltage.

The optimum value is set with VR1 (VR31), and VR2 (VR32) is for full scale adjustment. The A/D converter is provided with an external circuit constant to enable full scale indication of 1999 when 1.999 V is input, regardless of voltage indication, current indication and type of unit. Namely, these circuit constants are R1 (R31), C3 (C33), C4 (C34) and C5 (C35).

The main amp output of the amp unit (X73) is fed to the attenuator which consists of R20 (R50) and the amp unit R81 (R73). Voltage indication is 3-1/2 digits, but a 2nd attenuator is provided for 2 step auto range in case of indication 20 V or higher. When the indication in the U3 circuit exceeds 1999, a range up signal is output, and a range down signal is output when the indication is 1000 or lower. This signal is latched to the RS flip flop which comprises U4, is passed through Q1, Q2 and drives the decimal point LED. Simultaneously, Q3 drives the analog switch Q4.

Since the ground levels for the meter output of the voltage and current are different, the respective power supplies are isolated.

PRINCIPLE OF THE FLOATING REGULATOR

Vref:

Reference voltage at CV

Iref:

Reference voltage at CC

Vg:

Ground at CV

lg:

Ground at CC

The output voltage at CC operation

$$V_0 = \frac{R_2}{R_1}$$
 Vref

The output current at CC operation

$$I_0 = \frac{K}{R_s}$$
 Iref (where $K = \frac{R_4}{R_3 + R_4}$)

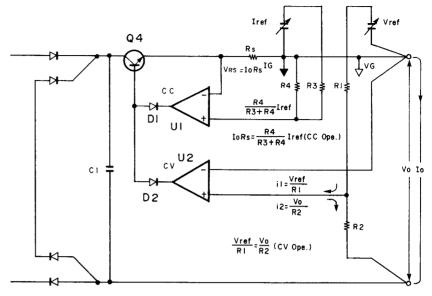
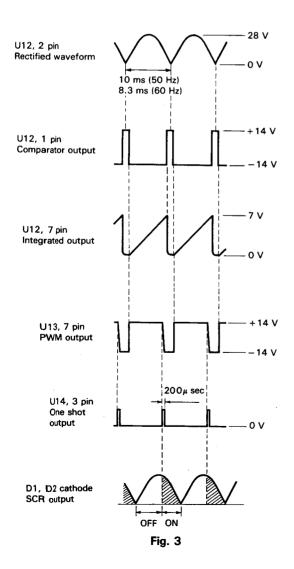


Fig. 2 With the PD series, the constant output voltage and current are obtained by changing the Vref and Iref.



ADJUSTMENT

ADJUSTMENT

To obtain the best performance, periodically calibrate the unit. Sometimes, only one mode nead be calibrated, while at other times, all modes should be calibrated.

When one mode is calibrated, it must be noted that the other modes may be affected

When calibrating all modes, perform the calibration in specified sequence. The following calibration required an accurate measuring instrument and an insulated adjusting flat blade screwdriver.

For optimum adjustment, turn the power on and warm up this equipment sufficiently (more than 30 minutes) before starting.

Before calibrating the unit, check the power supply voltage and the zero of the voltmeter and ammeter.

TEST EQUIPMENT REQUIRED

The following instrument or their equivalent should be used for making adjustment.

Multimeter Oscilloscope 8810A

FLUKE

CS-5165

5 KENWOOD

PREPARATION FOR ADJUSTMENT

- The control and switch settings listed below should be used for each adjustment procedure.
 Exceptions to these setting will be noted as occur.
- 2) Power cord should be correctly connected.
- 3) Short bar should be connected as follows.
- 8-9, $G-\bigcirc$ (on the front panel)
- Heat sink should be insulated with respect to the chassis.
- 5) Unless otherwise specified, set each control as follows after completion of each adjustment.

POWER

VOLTAGE

Maximum counterclockwise position

CURRENT

OUTPUT

OFF (1)

V/I CHECK

OVP CHECK

OVP adi. control

Maximum clockwise position

Maximum clockwise position

item	Control and setting	Test Equp.	Adj. Control	Specifications	Procedure
C1 Voltage check		8810A		Less than 10V	Connect a multimeter to measure the voltage between C1 (+ side) and (- side).
±15V check		8810A		±15V ±0.5V	Connect a multimeter to measure the voltage between OUTPUT (⊕) on the front panel and ±15V test points on the AMP unit, respectively.
V _{CE} voltage coarse	VOLTAGE; maximum clockwise position CURRENT; maximum clockwise position	8810A	VR20	Approx 4.5V	Connect a multimeter to measure the voltage between collector and emitter of the transistor on the heat sink. See Fig. 4.
V _{REF} offset	OUTPUT; OFF VOLTAGE; minimum counterclockwise position CURRENT; maximum clockwise position	8810A	VR2	0V±0.5mV	Connect a multimeter between OUTPUT terminal (+S) and control terminal NO.3 on the rear panel.
V _{REF} gain	VOLTAGE; maximum clockwise position CURRENT; maximum clockwise position	8810A	VR1	10.25V ±0.03 V	Connect a multimeter between OUTPUT terminal (+S) and control terminal NO.3 on the rear panel.
V meter offset	VOLTAGE; minimum counterclockwise position CURRENT; maximum clockwise position		VR8	OV D type; OV ±OV	Make adjustment while observing the V meter on the front panel.

ADJUSTMENT

Item	Control and setting	Test Equp.	Adj. Control	Specifications	Procedure
V OUT offset	OUTPUT; ON VOLTAGE; minimum counterclockwise position CURRENT; maximum clockwise position		VR11	O V D type; O V ±0 V	Make adjustment while observing the V meter on the front panel.
V meter gain	CURRENT; maximum clockwise position V/I CHECK; OFF	8810A	VR7	Specified voltage(full scale) D type; specified voltage ±1 digit	Connect a multimeter between OUTPUT terminal ⊕ and ⊖ on the front panel. Rotating the VOLTAGE control to indicate specified voltage range on the multimeter.
V check	OUTPUT; ON CURRENT; maximum clockwise position V/I CHECK; ON	8810A	VR5	Specified voltage (full soale) D type; specified voltage ±1 digit	Make adjustment while observing the V meter on the front panel.
I _{REF} offset	OUTPUT; ON VOLTAGE; maximum clockwise position CURRENT; minimum counterclockwise posi- tion	8810A Load (1) Current detecting resistor	VR4	10mV ±1mV	Connect the multimeter between control terminal NO.8 and NO.11 on the rear panel.
I _{REF} gain	OUTPUT; ON VOLTAGE; maximum clockwise position CURRENT; optimum position		VR3	+ 2.5% for specified current	 Connect a load (1) which can accept the specified current value. Make adjustment so that the current value of the load (1) displayes +2.5% for the specified current value while measuring the current value.
I meter offset	OUTPUT; OFF VOLTAGE; maximum clockwise position CURRENT; minimum counterclockwise posi- tion		VR10	OA D type; OA ±OA	
l meter gain	OUTPUT; ON VOLTAGE; maximum clockwise position CURRENT; optimum position V/I CHECK; OFF	8810A Load (1) Current detecting resistor	VR9	Specified current value(full scale) D type; specified current value ± 1 digit	 Connect a load (1) which can accept the specified current value. Set the value to specified current value by using the CURRENT control. Make adjustment so that the value of I meter on the front panel becomes the specified current value.
I check	V/I CHECK; ON VOLTAGE; maximum clockwise position CURRENT; optimum position	8810A Load (1) Current detecting resistor	VR6.	Specified current value (full scale) D type; specified current value ±1 digit	

Note: Be sure to adjust the I_{REF} gain, I meter offset and I check when the CC indicator is lit.

ADJUSTMENT

Item	Control and setting	Test Equip.	Adj. Control	Specifications	Procedure
V _{OE} voltage fine	VOLTAGE; maximum clockwise position CURRENT; maximum clockwise position	Load (2)	VR20	4.5V ±0.1V	Repeat entire procedure for V _{CE} coarse adjustment. Be sure to connect a load with which 10% current value for specified current can be supplied.

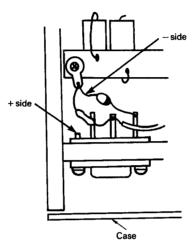


Fig. 4 Right side of heatsink

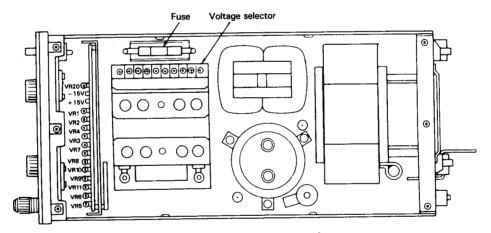


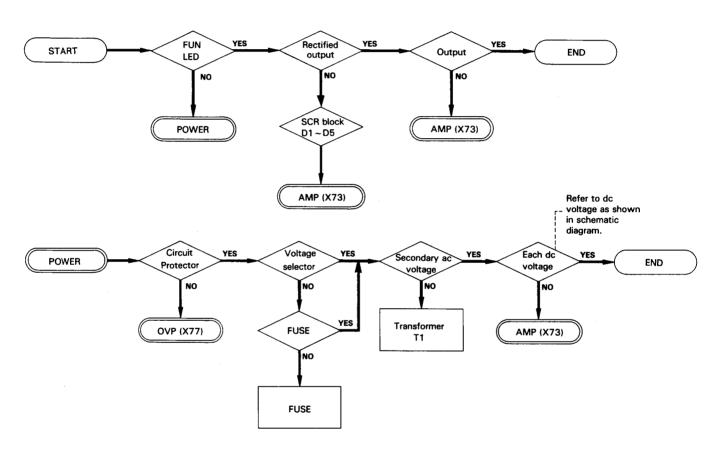
Fig. 5 Location of adj. control

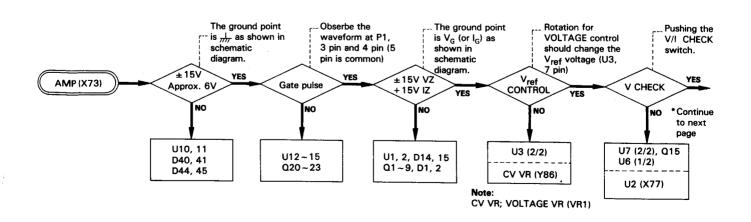
Current detec- ting resistor	10mΩ	50W, 0.1%	Note: With an electronic load (35 V, 30 A) for load (1) and (2), the adjustment
Load (1)	0.1Ω	300W, 5%	may be easy.
Load (2)	5Ω	150W, 5%	

TROUBLESHOOTING

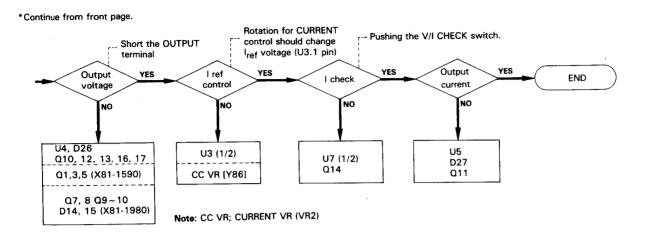


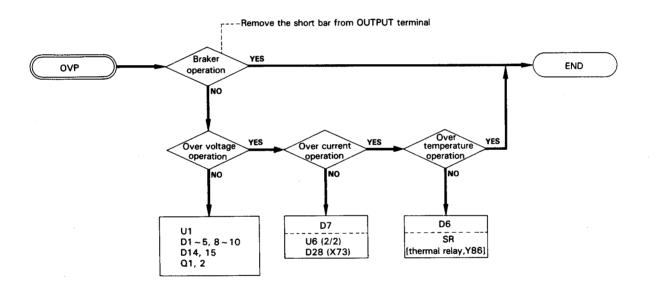
1. ANALOG METER SECTION



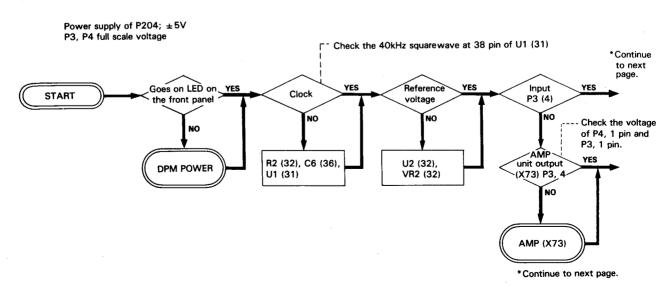


TROUBLESHOOTING

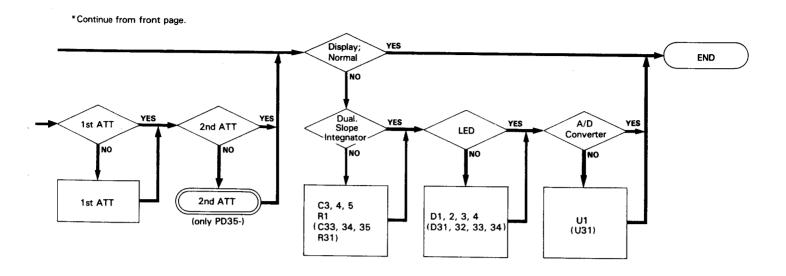


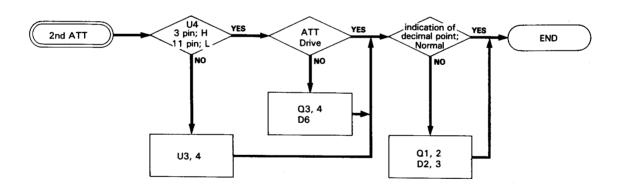


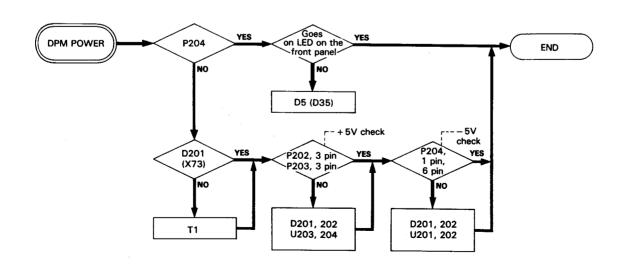
2. DIGITAL POWER METER SECTION



TROUBLESHOOTING







PD18-10 (Y86-1220-00)

B31-0735-05	-	(Y8	36-1220-00)
## # # # # # # # # # # # # # # # # # #	EF, NO		
R12-1930-04		B 4 0 - 2 8 5 1 - 0 3	NAME PLATE, NODEL NO.
BSD-7586-30		B 4 2 - 1 9 3 0 - 0 4	LABEL, FO 100 120 0 100 120 J
E23-0541-05			INSTRUCTION MANUAL; JAPANESE
E23-0536-14			
E 22 - 0.5 3.7 - 14 H01 - 2.8 2.3 - 12 H10 - 2.8 2.3 - 13 H10 - 2.8 2.3 - 14 H10 - 2.8 2.3 - 15 H10 - 2.8 2.3 - 15		E 2 3 - 0 5 6 4 - 0 5	EARTH LUG
HIO-2823-12		E 2 9 - 0 5 3 7 - 1 4	SHORTING BAR, REAR OUTPUT
J21-2912-05 J21-4561-04 J32-0876-05 J61-0525-05 J61-0525-05 J61-0526-05 N09-0623-04 N09-0623-04 N09-0623-05 N09-0623-05 N09-0723-05 N09-0725-15 N09-0725-15 N09-0725-15 N09-0726-05 N09-0732-05 N09-0732-05 N09-0732-05 N09-0732-05 N09-0735-05 N09-0735-05 N09-0735-05 N09-0735-05 N09-0735-05 N09-0735-05 N09-0735-05 N09-0735-05 N09-0736-04 N09-0735-05 N09-0736-04 N09-0736-04 N09-0736-04 N09-0736-04 N09-0736-04 N09-0736-05 N09-0738-04 N09-0736-05 N09-0738-04 N14-0620-05 N19-0717-05 N19-0717-05 N19-0717-05 N19-0717-05 N19-0718-04 N30-4016-41 N32-3008-41 N32-3008-41 N32-3008-41 N32-3008-41 N33-3008-41 N38-4012-41 N39-3012-41 N39-3012-41 N39-3014-41 SCREW.FLAT HD M3X6 SCREW.FLAT HD M3X6 SCREW.FLAT HD M3X16 SCREW.FLAT HD M3X18 SCREW.FLAT HD M3X18 SCREW.FLAT HD M3X18 SCREW.FLAT HD M3X18 SCREW.FLAT HD M3X16 SCREW.FLAT HD M3X16 SCREW.FLAT HD M3X16 SCREW.FLAT HD M3X16 SCREW.FLAT HD M3X18 SCREW.FLAT HD M3X16 SCREW.FLAT HD M3X16 SCREW.FLAT HD M3X18 SCREW.FLAT HD M3X16		11 1 0 - 2 8 2 3 - 1 2	FOAMED STYRENE PAD (F)
J21-4561-04 J32-0876-05 J61-0528-05 J61-0528-05 N09-0623-04 N09-0628-04 N09-0628-05 N09-0723-05 N09-0723-05 N09-0723-05 N09-0723-05 N09-0728-05 N09-0728-05 N09-0728-05 N09-0735-05 SCREW,SEMS PAN HD MAXIO N09-0735-05 N09-0735-05 N09-0735-05 N09-0735-05 SCREW,SEMS PAN HD MAXIO N09-0748-04 N09-0748-04 N14-0404-04 N14-04004-04 N14-04004-04 N14-04004-04 N14-04004-04 N14-04004-05 N19-0718-05 N19-0717-05 N19-0717-05 N19-0717-05 N19-0717-05 N19-0717-05 N19-0718-04 N30-4016-41 N33-3006-41 N33-4008-41 N33-4008-41 N33-4008-41 N33-4008-41 SCREW,FLAT HD M3X6 N89-3014-41 SCREW,BINDING TAPTITE 3X10 N89-3014-41 SCREW,BINDING TAPTITE 3X12 N89-3014-41 SCREW,BINDING TAPTITE 3X12 N89-3014-41 SCREW,BINDING TAPTITE 3X12 SCREW,BINDING T			
JG1-0526-05		J21-4561-04	
NO9-0623-04 SCREW.SEMS PAN HD M3X10 NO9-0636-05 SCREW.SEMS PAN HD M3X10 NO9-0636-05 SCREW.SEMS PAN HD M4X12 NO9-0723-05 SCREW.SEMS PAN HD M4X12 NO9-0723-05 SCREW.SEMS PAN HD M4X12 NO9-0723-05 SCREW.SEMS PAN HD M4X10 SCREW.SEMS PAN HD M4X10 NO9-0735-05 SCREW.SEMS PAN HD M4X10 NO9-0736-05 SCREW.SEMS PAN HD M4X10 NO9-0748-04 SCREW.SEMS PAN HD M4X10 NO9-0748-04 SCREW.SEMS PAN HD M4X12 NO9-0942-04 SCREW.SEMS PAN HD M4X16 NO9-0942-04 SCREW.SEMS PAN HD M4X16 NO9-0942-04 SCREW.SEMS PAN HD M4X16 NO9-0942-04 SCREW.SEMS PAN HD M4X8 SCREW.SEMS PAN HD M4X16 NO9-0942-05 SCREW.SEMS PAN HD M4X8 SCREW.SEMS PAN HD M4X8 SCREW.SEMS PAN HD M4X16 NO9-0942-05 SCREW.SEMS PAN HD M4X16 NO9-0942-05 SCREW.SEMS PAN HD M4X8 SCREW.SEMS PAN HD M		J61-0525-05	
NO9-0654-05		N 0 9 - 0 6 2 3 - 0 4	SCREW, SENS PAN HD M3X8
NO9-0725-15 SCREW.SEMS PAN HD MAXIO NO9-0738-05 SCREW.SEMS PAN HD MAXIO NO9-0738-05 SCREW.SEMS PAN HD MAXIO NO9-0738-05 SCREW.SEMS PAN HD MAXIO NO9-0738-04 SCREW.SEMS PAN HD MAXIO NO9-0942-04 NO9-0942-05 NO9-0942-05 NO9-0942-05 NO9-0942-05 NO9-0942-05 NO9-0942-05 SCREW.SEMS PAN HD MAXIO NO9-0942-04 NO9-		N 0 9 - 0 6 5 4 - 0 5	SCREW, SENS PAN 11D 114X8
NOS-0732-05 SCREW,TRUSS HD M558 NOS-0738-05 SCREW,SEMS PAN HD M4X12 NOS-0942-04 NOS-0942-04 NOS-0942-04 NOS-0942-04 NI4-0620-05 SCREW,SEMS PAN HD M4X12 SCREW,SEMS PAN HD M3X8 NI4-0620-05 FLANGE NUT			SCREW, SENS PAN HD M4X12
NO9-0735-05 NO9-0748-04 NO9-0942-04 N14-0404-04 N14-0404-04 N14-0404-04 N14-0404-04 N14-0520-05 N19-0717-05 N19-0717-05 N19-0717-05 N19-0717-05 N19-0726-04 N30-4016-41 N32-3006-41 N33-4008-41 N33-4008-41 N33-4008-41 N88-30012-41 N88-30012-41 N88-30012-41 N88-3012-41 N88-3014-41 SCREW, FLAT HD TAPTITE 2X8 N89-3014-41 SCREW, BINDING TAPTITE 3X12 N89-3014-41 SCREW, BINDING TAPTITE 3X14 N89-3014-41 SCREW, BINDING TAPTITE 3X14 SCREW, BINDING TAPTITE 3X14 SCREW, BINDING TAPTITE 3X14 SCREW, BINDING TAPTITE 3X15 SCREW, BINDING TAPTITE 3X15 SCREW, BINDING TAPTITE 3X15 SCREW, BINDING TAPTITE 3X16 SCREW, FLAT HD MAXI6 MAXI6 MAXI6 MAXI6 MAXI6 MAXI6 MAXI7 MAXIC		N 0 9 - 0 7 2 6 - 0 5 N 0 9 - 0 7 3 2 - 0 5	
NOS-0842-04		N 0 9 - 0 7 3 5 - 0 5	
NI 14 - 06 20 - 05		N 0 9 - 0 9 4 2 - 0 4	SCREW, SENS PAN HD H3X8
NIB-0728-04		N 1 4 - 0 6 2 0 - 0 5	FLANGE NUT M4
N30-4016-41 N32-3006-41 N33-4008-41 N33-4008-41 N38-4012-41 N88-3018-41 N89-3018-41 N89-3018-41 N89-3018-41 SCREW, FLAT HD MAX8 N89-3018-41 SCREW, BINDING TAPTITE 3X8 N89-3018-41 SCREW, BINDING TAPTITE 3X12 SCREW, BINDING TAPTITE 3X12 SCREW, BINDING TAPTITE 3X12 SCREW, BINDING TAPTITE 3X14 SCREW, BINDING TAPTITE 3X14 SCREW, BINDING TAPTITE 3X12 SCREW, BINDING TAPTITE 3X14 SCREW, BINDING TAPTITE 3X12 SCREW, BINDING TAPTITE 3X12 SCREW, BINDING TAPTITE 3X14 SCREW, BINDING TAPTITE 3X12 SCREW, BINDING TAPT			WASHER H5
N N N N N N N N N N		N 3 0 - 4 0 1 6 - 4 1	
N89-3008-41 SCREW, BINDING TAPTITE 3X8 N89-3012-41 SCREW, BINDING TAPTITE 3X12 SCREW, BINDING TAPTITE 3X14 SCREW,		N 3 3 - 4 0 0 8 - 4 1	SCREW, OVAL HD MAX8
N89-3014-41 SCREW BINDING TAPTITE 3X14 N89-3014-41 SCREW BINDING TAPTITE 4X14 C1		N 8 9 - 3 0 0 8 - 4 1	SCREW, BINDING TAPTITE 3X8
C1		N 8 9 - 3 0 1 4 - 4 1	SCREW, BINDING TAPTITE 3X14
CAP. FLECTRO 1000 20% 50V CAP. GP1-0594-05 CAP. METALIZED 0.1 10% 250V CAP. METALIZED 0.1 10% 20% 250V CAP. METALIZED 0.1 10% 250V CAP. METALIZED 250V CAP. METALI	C 1		CAP. ELECTRO 12000 35V
C4	C 2 C 3		CAP. ELECTRO 1000 20% 50V
C6 E31-2686-05 SPARK RILLER ASS'Y C10 CE04EWIE101M CAP. ELECTRO 100 20% 25V C11 CE04EWIE101M CAP. ELECTRO 100 20% 25V D1 CR09C THYRISTOR D2 CR09C THYRISTOR D8 AR4133S LED:RED D9 AR4133S LED:GRED D10 BG4133S LED:GRED D11 TNR15G431K VARISTOR P1 E10-1061-05 EDGE CARD CONNECTOR P2 E10-3661-05 EDGE CARD CONNECTOR R10 R92-1195-05 RES. FIXED 470 10% 10W S1 S59-1502-05 SWITCH (CIRCUIT PROTECTOR) SR S51-1518-05 THERNAL SENSOR T1 L01-9546-15 THERNAL SENSOR T1 L01-9546-15 POWER TRANSFORMER CHOKE COIL VR1 R29-0505-05 V.R. 10K VR2 R05-3511-05 CASE 1 A01-1446-22 CHASSIS A10-1446-22 CHASSIS A10-1446-22 CHASSIS A10-1446-22 CHASSIS B07-0713-04 ESCUTCHEON SERIAL NO. PLATE 1 E18-0363-05 B E20-0491-05 TERNINAL BLOCK 4P TERNINAL BLOCK 12P TERNINAL B	C 4		CAP. METALIZED 0.1 10% 250V
C11 CE04EWIE101M CAP. ELECTRO 100 20% 25 V D1 CR09C THYRISTOR D8 AR4133S LED:RED D9 AR4133S LED:RED D10 BG4133S LED:GREEN D11 TNR15G431K VARISTOR P1 E10-1061-05 EDGE CARD CONNECTOR P2 E10-3661-05 EDGE CARD CONNECTOR R10 R92-1195-05 RES. FIXED 0.036 5% 40 W R14 R92-1157-05 RES. FIXED 470 10% 10 W S1 S59-1502-05 SWITCH (CIRCUIT PROTECTOR) THERMAL SENSOR T1 L.01-9546-15 THERMAL SENSOR T2 L15-0407-05 CHOKE COIL VR1 R29-0505-05 V.R. 10 K VR2 R05-3511-05 CHOKE COIL VR1 R29-0505-05 V.R. 10 K VR2 R05-3511-05 CHOKE COIL VR1 R29-0505-05 V.R. 10 K VR2 R05-3511-05 CHOKE COIL VR1 R29-0505-05 V.R. 10 K VR2 R05-3511-05 CHOKE COIL VR1 R29-0505-05 V.R. 10 K VR2 R05-3511-05 CHOKE COIL VR1 R29-0505-05 V.R. 10 K VR2 R05-3511-05 CHOKE COIL VR1 R29-0505-05 V.R. 10 K VR2 R05-3511-05 CHOKE COIL VR1 R29-0505-05 V.R. 10 K V.R. 1	C 6	E 3 1 - 2 6 8 6 - 0 5	
D2 CR09C THYRISTOR D8 AR4133S LED:RED D10 BG4133S LED:GRED D11 TNR15G431K VARISTOR P1 E10-1061-05 EDGE CARD CONNECTOR P2 E10-3661-05 EDGE CARD CONNECTOR R10 R92-1195-05 RES. FIXED 0.036 5% 40W R14 R92-1157-05 RES. FIXED 470 10% 10W S1 S59-1502-05 SWITCH (CIRCUIT PROTECTOR) SR S51-1518-05 THERMAL SENSOR P1 L.01-9546-15 POWER TRANSFORMER C1 L15-0407-05 CHOKE COIL VR1 R28-0505-05 V.R. 10K VR2 R05-3511-05 CHOKE COIL VR1 R28-0505-05 V.R. 10K VR2 R05-3511-05 CHOKE COIL VR1 R28-0505-05 V.R. 10K CASE 2 A10-1446-22 CHASSIS 3 A20-2794-05 DECORATIVE PANEL 5 B07-0713-04 ESCUTCHEON 5 B07-0713-04 ESCUTCHEON 5 E18-0363-05 INLET SOCKET TERMINAL BLOCK 12P TERMINAL RED SHORTING BAR 14A E30-1818-05 JIS POWER CORD SET 14B E30-1819-15 IEC POWER CORD SET 14C E30-1820-05 UL/CSA POWER CORD SET 14C E30-1820-05 UL/CSA POWER CORD SET 14D E30-1820-05 UL/CSA POWER CORD SET 14D E30-1820-05 UL/CSA POWER CORD SET 14C E30-1820-05 UL/CSA POWER CORD SET	C 1 1	CE04EW1E101M	CAP. ELECTRO 100 20% 25V
D9	D 2	C R 0 9 C	THYRISTOR
D11 TNR15G431K VARISTOR P1 E10-1061-05 EDGE CARD CONNECTOR P2 E10-3661-05 EDGE CARD CONNECTOR R10 R92-1195-05 RES. FIXED 0.036 5% 40W R14 R92-1157-05 RES. FIXED 470 10% 10W S1 S59-1502-05 SWITCH (CIRCUIT PROTECTOR) SR S51-1518-05 THERMAL SENSOR P0 WER TRANSFORMER CHOKE COIL VR1 R29-0505-05 V.R. 10K VR2 R05-3511-05 CHOKE COIL VR1 R29-0505-05 V.R. 10K	D 8		LED; RED
R10			VARISTOR
R10 R92-1195-05 RES. FIXED 0.036 5% 40W R14 R92-1157-05 RES. FIXED 470 10% 10W S1 S59-1502-05 SWITCH (CIRCUIT PROTECTOR) SR S51-1518-05 THERMAL SENSOR T1 L01-9546-15 POWER TRANSFORMER CHOKE COIL VR1 R29-0505-05 V.R. 10K VR2 R05-3511-05 V.R. 10K 1 A01-1152-03 CASE 2 A10-1446-22 CHASSIS 3 A20-2794-05 PANEL (DIECAST) 4 A21-1081-03 DECORATIVE PANEL 5 B07-0713-04 ESCUTCHEON 6 B40-2765-04 ESCUTCHEON 7 E18-0363-05 INLET SOCKET 8 E20-0491-05 TERMINAL BLOCK 4P 7 E18-0363-05 INLET SOCKET 8 E20-1291-15 TERMINAL BLOCK 12P 10 E21-0665-03 TERMINAL BLOCK 12P 11 E21-0665-03 TERMINAL BLOCK 12P 12 E21-0666-03 TERMINAL BLOCK 12P 13 E29-0506-04 SHORTING BAR 14A E30-1818-05 JIS POWER CORD SET 14B E30-1819-15 IEC POWER CORD SET 14C E30-1820-05 UL/CSA POWER CORD SET 14D E30-1929-05 HEAT SINK 16A F01-0853-14 HEAT SINK 16A F01-0854-34 HEAT SINK 17A F06-4026-05	P 1	E 10-1061-05	EDGE CARD CONNECTOR EDGE CARD CONNECTOR
R14 R92-1157-05 RES. FIXED 470 10% 10W S1 S59-1502-05 SWITCH (CIRCUIT PROTECTOR) SR S51-1518-05 THERMAL SENSOR T1 L01-9546-15 POWER TRANSFORMER CHOKE COIL VR1 R29-0505-05 V.R. 10K VR2 R05-3511-05 V.R. 10K VR2 R05-3511-05 V.R. 10K A01-1152-03 CASE 2 A10-1446-22 CHASSIS 3 A20-2794-05 PANEL (DIECAST) 4 A21-1081-03 DECORRATIVE PANEL 5 B07-0713-04 ESCUTCHEON 6 B40-2765-04 SERIAL NO. PLATE 16 E20-0491-05 TERMINAL BLOCK 4P TERMINAL BLOCK 12P TERMINA			
SI S59-1502-05 SWITCH (CIRCUIT PROTECTOR) R S51-1518-05 THERMAL SENSOR T1 L.01-9546-15 POWER TRANSFORMER C115-0407-05 CHOKE COIL VRI R28-0505-05 V.R. 10K VR2 R05-3511-05 V.R. 10K A01-1152-03 CASE A10-1446-22 CHASSIS A20-2794-05 PANEL (DIECAST) A21-1081-03 DECORATIVE PANEL E18-0363-05 HNLET SOCKET B H0-2765-04 ESCUTCHEON SERIAL NO. PLATE INLET SOCKET E18-0363-05 INLET SOCKET TERMINAL BLOCK 12P TERMINAL GLAY TERMINAL GLOCK 12P TERM			
SR S51-1518-05 T1 L.01-9546-15 POWER TRANSFORMER CHOKE COIL VR1 R29-0505-05 V.R. 10K PR2 R05-3511-05 CHASSIS A 10-1446-22 A 10-1446-22 A 21-1081-03 B 07-0713-04 B 807-0713-04 B 807-0			
T2 L15-0407-05 CHOKE COIL VR1 R29-0505-05 V.R. 10K VR2 R05-3511-05 V.R. 10K 1 A01-1152-03 CASE 2 A10-1446-22 CHASSIS 3 A20-2794-05 PANEL (DIECAST) 4 A21-1081-03 5 B07-0713-04 ESCUTCHEON 6 B40-2765-04 SERIAL NO. PLATE 7 E18-0363-05 INLET SOCKET 8 E20-0491-05 TERMINAL BLOCK 4P 9 E20-1291-15 TERMINAL BLOCK 12P 10 E21-0665-03 TERMINAL BULE 11 E21-0666-03 TERMINAL BLOCK 12P 12 E21-0666-03 TERMINAL BLOCK 12P 13 E29-0506-04 SHORTING BAR 14A E30-1818-05 SHORTING BAR 14A E30-1818-05 JIS POWER CORD SET 14B E30-1819-15 SAA POWER CORD SET 14C E30-1820-05 UL/CSA POWER CORD SET 14C E30-1929-05 TERMINAL SOCRE SET 14D E30-1929-05 TERMINAL SOCRE SET 14D E30-1929-05 TERMINAL SOCRE SET 14D E30-1929-05 TERMINAL SOCRE SET 15 F01-0853-14 HEAT SINK 17A F06-4026-05 FUSE(6.4X30NN) 4A/250V	SR	S51-1518-05	THERMAL SENSOR
NR			
1			
2		A 01 - 1 1 5 2 - 0 3	CASE
4		A 10 - 1446 - 22	PANEL (DIECAST)
6 B 40-2765-04 SERIAL NO. PLATE 7 E 18-0363-05 INLET SOCKET 8 E 20-0491-05 TERMINAL BLOCK 4P 10 E 21-0653-03 TERMINAL BLOCK 12P 11 E 21-0665-03 TERMINAL, BULE 12 E 21-0666-03 TERMINAL, GLAY 12 E 21-0666-03 TERMINAL, GLAY 13 E 29-0508-04 SHORTING BAR 14A E 30-1818-05 JIS POWER CORD SET 14B E 30-1821-15 SAA POWER CORD SET 14C E 30-1821-15 SAA POWER CORD SET 14D E 30-1929-05 BS POWER CORD 14E E 30-1821-15 SAA POWER CORD 14E E 30-1821-15 SAA POWER CORD 15 F01-0853-14 HEAT SINK 16 F01-0854-34 HEAT SINK 17A F06-4026-05 FUSE(6.4X30NN) 4A/250V	4	A 21-1081-03	ESCUTCHEON
8	6	B 40 - 2765 - 04	
10	8	F. 20 - 0491 - 05	TERMINAL BLOCK 4P
12	10	E 21 - 0653 - 03	TERMINAL, BULE
14A E30-1818-05 JIS POWER CORD SET 14B E30-1819-15 IEC POWER CORD SET 14C E30-1821-15 SAA POWER CORD SET 14D E30-1829-05 BS POWER CORD 14E E30-1820-05 UL/CSA POWER CORD 15 F01-0853-14 HEAT SINK 16 F01-0854-34 HEAT SINK 17A F06-4026-05 FUSE(6.4X30NM) 4A/250V		E 21 - 0666 - 03	TERMINAL, RED
14B E30-1819-15 IEC POWER CORD SET 14C E30-1821-15 SAA POWER CORD 14B E30-1929-05 BS POWER CORD 14E E30-1820-05 UL/CSA POWER CORD 15 F01-0853-14 HEAT SINK 16 F01-0854-34 HEAT SINK 17A F06-4026-05 FUSE(6.4X30NM) 4A/250V		E 29 - 05 06 - 04 E 30 - 18 18 - 05	JIS POWER CORD SET
14D E30-1929-05 BS POWER CORD 14E E30-1820-05 UL/CSA POWER CORD SET 15 F01-0853-14 HEAT SINK 16 F01-0854-34 HEAT SINK 17A F06-4026-05 FUSE(6.4X30MM) 4A/250V	14B	E30-1819-15	
15 F01-0853-14 HEAT SINK 16 F01-0854-34 HEAT SINK 17A F06-4026-05 FUSE(6.4X30NM) 4A/250V	1 4 D	E30-1929-05	BS POWER CORD
17A F06-4026-05 FUSE(6.4X30NN) 4A/250V	15	F01-0853-14	HEAT SINK
17B F06-7027-05 FUSE(6.4x30nn) 7x/2504	17A	F06-4026-05	FUSE(6.4X30NN) 4A/250V
	17B	F06-7027-05	FUSE(6.4X3UNA) /A/25U4

BEE NO	DIRTC NO	NAME & DESCRIPTION
REF. NO	PARTS NO	
18	F19-0712-05	CAP FOR DP-652
19	F 2 0 - 0 6 5 7 - 2 5	INSULATOR
20	J02-0049-14	LEG
2 1	J 1 1 - 0 5 0 4 - 0 5	CLANPER
2 2	J 1 3 - 0 0 3 3 - 1 5	FUSE HOLDER
2 3	J 2 1 - 0 3 9 2 - 0 4	HOLDER FOR OUTPUT LEAD
2.4	J21-2948-04	BRACKET, RIGHT
2.5	J21-2949-04	BRACKET, LEFT
2 7	J21-4557-04	BRACKET, FOR TRANSISTOR
2 8	J21-4558-04	BRACKET, FOR TRANSISTOR
2 9	J 2 1 - 4 5 5 9 - 1 4	BRACKET, FOR HEAT SINK
3.0	J 2 1 - 4 5 6 0 - 0 4	BRACKET, FOR HEAT SINK
3 2	J 2 1 - 4 5 7 0 - 2 3	BRACKET, FOR PCB
3 3	K O 1 - O 5 4 4 - O 5	HANDLE
3 4	K 2 1 - 0 8 7 7 - 1 3	KNOB
3 5	K 2 7 - 0 5 2 8 - 1 4	KNOB, FOR PUSH SW
36	T 4 0 - 0 4 2 2 - 0 5	FAN
3 7	X73-1670-00	AMPLIFIER UNIT
39	X77-1400-00	OVP UNIT
40	X81-1590-00	RECTIFIER UNIT
41	X81-1980-05	C. I UNIT

PD18-10D

(Y86-1230-00)

	(Y	86-1230-00)
REF. NO	PARTS NO B 4 0 - 2 8 5 3 - 0 3 B 4 1 - 0 7 8 2 - 0 4 B 4 2 - 1 9 3 0 - 0 4 B 4 2 - 3 8 2 0 - 0 5 B 5 0 - 7 5 8 5 - 3 0 B 5 0 - 7 5 8 6 - 3 0 E 2 3 - 0 5 4 1 - 0 5	NAME & DESCRIPTION NAME PLATE, MODEL NO. FUSE RATING LABEL LABEL, FO 100 120 0 100 120 J LABEL, FO 100 120 J LABEL, FO 100 HANUAL: JAPANESE INSTRUCTION MANUAL: ENGLISH EARTH LUG
	E 2 3 - 0 5 6 4 - 0 5 E 2 9 - 0 5 3 6 - 1 4 E 2 9 - 0 5 3 7 - 1 4 F 2 0 - 0 6 4 7 - 0 5 H 0 1 - 5 7 8 7 - 2 4 H 1 0 - 2 8 2 3 - 1 2 H 1 0 - 2 8 2 4 - 1 2	EARTH LUG SHORTING BAR, CONTROL TERMINAL SHORTING BAR, REAR OUTPUT INSULATOR, FOR TRANSISTOR CARTON BOX FOAMED STYRENE PAD (F) FOAMED STYRENE PAD (R)
	J 2 1 - 2 9 1 2 - 0 5 J 3 2 - 0 8 7 6 - 0 5 J 6 1 - 0 5 2 5 - 0 5 J 6 1 - 0 5 2 6 - 0 5 N 0 9 - 0 6 2 3 - 0 4 N 0 9 - 0 6 2 6 - 0 4	RING/HOLDER FOR LED BOSS CARD SPACER LOCKING CARD SPACER SCREW,SEMS PAN HD M3X8 SCREW,SEMS PAN HD M3X10
	N 0 9 - 0 6 5 4 - 0 5 N 0 9 - 0 7 2 3 - 0 5 N 0 9 - 0 7 2 5 - 1 5 N 0 9 - 0 7 2 6 - 0 5 N 0 9 - 0 7 3 2 - 0 5 N 0 9 - 0 7 3 5 - 0 5 N 0 9 - 0 7 4 2 - 0 4	SCREW, SENS PAN HD M5X10 SCREW, SENS PAN HD M4X12 SCREW, SENS PAN HD M4X10 SCREW, SENS PAN HD M4X10 SCREW, TRUSS HD M5X8 SCREW, SENS PAN HD M4X6 SCREW, SENS PAN HD M3X8
	N 0 9 - 0 9 4 8 - 0 4 N 1 4 - 0 4 0 4 - 0 4 N 1 4 - 0 6 2 0 - 0 5 N 1 9 - 0 1 9 1 - 0 5 N 1 9 - 0 7 1 7 - 0 5 N 1 9 - 0 7 2 6 - 0 4	SCREW, SEMS PAN HD N4X12 FLANGE NUT M3 FLANGE NUT M4 INSULATING WASHER INSULATING WASHER WASHER WASHER SCREW, FLAT HD M3X6
	N 3 2 - 3 0 0 6 - 4 1 N 3 2 - 3 0 0 8 - 4 1 N 3 3 - 4 0 0 8 - 4 1 N 8 8 - 4 0 1 2 - 4 1 N 8 9 - 3 0 0 8 - 4 1 N 8 9 - 3 0 1 2 - 4 1 N 8 9 - 3 0 1 4 - 4 1 N 8 9 - 4 0 1 4 - 4 1	SCREW, FLAT HD M3X6 SCREW, FLAT HD M3X8 SCREW, FLAT HD M4X8 SCREW, FLAT HD TAPTITE 2X8 SCREW, BINDING TAPTITE 3X8 SCREW, BINDING TAPTITE 3X12 SCREW, BINDING TAPTITE 3X14 SCREW, BINDING TAPTITE 3X14
C 1 C 2 C 3 C 4 C 5	C 9 0 - 0 9 5 5 - 0 5 C 9 0 - 0 9 1 9 - 1 5 C 9 0 - 0 9 2 0 - 0 5 C 9 1 - 0 5 9 4 - 0 5 NO USE	CAP. ELECTRO 12000 351 CAP. ELECTRO 1000 20% 500 CAP. ELECTRO 1000 20% 500 CAP. METALIZED 0.1 10% 250 SPARK KILLER ASS'Y
C 6	E31-2686-05 CE04EW1E101M	CAP. ELECTRO 100 20% 25% CAP. ELECTRO 100 20% 25%
D 1 D 2	CE04EW1E101M CR09C CR09C	THYRISTOR THYRISTOR
D 8 D 9 D 1 0 D 1 1 P 1 P 2	AR4133S AR4133S BG4133S TNR15G431K E10-1061-05 E10-3661-05	LED: RED LED: RED LED: GREEN VARISTOR EDGE CARD CONNECTOR EDGE CARD CONNECTOR
R 1 0	R 9 2 - 1 1 9 5 - 0 5	RES. FIXED 0.036 5% 40
R 1 4	R 9 2 - 1 1 5 7 - 0 5	RES. FIXED 470 10% 10
S 1	S 5 9 - 1 5 0 2 - 0 5 S 5 1 - 1 5 1 8 - 0 5	SWITCH (CIRCUIT PROTECTOR) THERMAL SENSOR

REF. NO T1 T2	PARTS NO LOI-9546-15 LI5-0407-05	NAME & DESCRIPTION POWER TRANSFORMER CHOKE COIL
	U P C 7 8 0 5 K U P C 7 8 0 5 K	IC, VOLTAGE REGULATOR
V R 2 1 2 3 4	R 2 9 - 0 5 0 5 - 0 5 R 0 5 - 3 5 1 1 - 0 5 A 0 1 - 1 1 5 2 - 0 3 A 1 0 - 1 4 4 6 - 2 2 A 2 0 - 2 7 9 4 - 1 5 A 2 1 - 1 0 8 8 - 0 3 B 0 7 - 0 7 1 3 - 0 4	V.R. 10K V.R. 10K CASE CHASSIS PANEL (DIECAST) DECORATIVE PANEL ESCUTCHEON
6 7 8 9 10	B 4 0 - 2 7 6 5 - 0 4 E 1 8 - 0 3 6 3 - 0 5 E 2 0 - 0 4 9 1 - 0 5 E 2 0 - 1 2 9 1 - 1 5 E 2 1 - 0 6 5 3 - 0 3 E 2 1 - 0 6 6 6 - 0 3 E 2 9 - 0 5 0 6 - 0 4	SERIAL NO. PLATE INLET SOCKET TERMINAL BLOCK 4P TERMINAL BLOCK 12P TERMINAL, BULE TERMINAL, GLAY TERMINAL, RED SHORTING BAR
1 4 A 1 4 B 1 4 C 1 4 D 1 4 E	E 2 9 - 0 5 0 6 - 0 4 E 3 0 - 1 8 1 8 - 0 5 E 3 0 - 1 8 1 9 - 1 5 E 3 0 - 1 8 2 1 - 1 5 E 3 0 - 1 8 2 0 - 0 5 E 3 0 - 1 8 2 0 - 0 5 F 0 1 - 0 8 5 3 - 1 4 F 0 1 - 0 8 5 4 - 3 4	SHORTING BAR JIS POWER CORD SET IEC POWER CORD SET SAA POWER CORD SET BS POWER CORD UL/CSA POWER CORD HEAT SINK HEAT SINK
17 A 17 B 18 19 20	F 0 6 - 4 0 2 6 - 0 5 F 0 6 - 7 0 2 7 - 0 5 F 1 9 - 0 7 1 2 - 0 5 F 2 0 - 0 6 5 7 - 2 5 J 0 2 - 0 0 4 9 - 1 4 J 1 1 - 0 5 0 4 - 0 5 J 1 3 - 0 0 3 3 - 1 5	FUSE(6.4X30MM) 4A/250V FUSE(6.4X30MM) 7A/250V CAP FOR DP-652 INSULATOR LEG CLAMPER FUSE HOLDER
2 3 2 4 2 5 2 6 2 7	J21-0392-04 J21-2948-04 J21-2949-04 J21-4513-03 J21-4557-04 J21-4558-04	HOLDER FOR OUTPUT LEAD BRACKET, RIGHT BRACKET, LEFT BRACKET, FOR PCB BRACKET, FOR TRANSISTOR BRACKET, FOR TRANSISTOR
2 9 3 0 3 2 3 3 3 4	J21-4559-04 J21-4560-04 J21-4570-23 K01-0544-05 K21-0877-13 K27-0528-14	BRACKET, FOR HEAT SINK BRACKET, FOR HEAT SINK BRACKET, FOR PCB HANDLE KNOB KNOB, FOR PUSH SW
36 37 38 39 40 41	T40-0422-05 X73-1680-00 X76-1260-05 X77-1400-00 X81-1590-00 X81-190-05 B19-0743-03	FAN AMPLIFIER UNIT DPM UNIT OVP UNIT RECTIFIER UNIT C. I UNIT FILTER

PD35-10

(Y86-1240-00)

REF. NO	PARTS NO	NAME & DESCRIPTION
		METER (35V-10A)
		NAME PLATE (KENWOOD)
	B41-0781-04	CAUTION LABEL (FUSE)
		LABEL, FO 100 120 0 100 120
	B 4 2 - 3 8 2 0 - 0 5	
		INSTRUCTION MANUAL: JAPANESE
		INSTRUCTION MANUAL: ENGLISH
	E 2 3 - 0 5 4 1 - 0 5	
	E 2 3 - 0 5 6 4 - 0 5	EARTH LUG
	E29-0536-14	SHORTING BAR, CONTROL TERMINAL
	E 29-0537-14	SHORTING BAR, REAR OUTPUT CARTON BOX FOAMED STYRENE PAD (F)
	1101-5789-24	CARTON BOX
	11 1 0 - 2 8 2 3 - 1 2	FOAMED STYRENE PAD (F)
	H 1 0 - 2 8 2 4 - 1 2	FOAMED STYRENE PAD (R)
	J 2 1 - 2 9 1 2 - 0 5	RING/HOLDER FOR LED
	J21-4561-04	BRACKET, FOR METER
	J32-0876-05	
		LOCKING CARD SPACER
	N 0 9 - 0 6 2 3 - 0 4	SCREW, SENS PAN HD M3X8
	N 0 9 - 0 6 2 6 - 0 4	SCREW, SENS PAN HD M3X10
	N 0 9 - 0 6 5 4 - 0 5	SCREW, SERS PAN HD M4X8
	N 0 9 - 0 7 2 3 - 0 5	SCREW, SENS PAN HD M5X10
	N 0 9 - 0 7 2 5 - 1 5	SCREW, SENS PAN HD N4X12
	N 0 9 - 0 7 2 6 - 0 5	SCREW, SENS PAN HD M4X10
	N 0 9 - 0 7 3 2 - 0 5	SCREW, TRUSS HD M5X8
		SCREW, SENS PAN HD N4X6
		SCREW, SENS PAN HD M4X12
	N 1 4 - 0 4 0 4 - 0 4	
	N 1 4 - 0 6 2 0 - 0 5	
		INSULATING WASHER
	N 19-0726-04	
	N3U-4V16-41	SCREW, PAN HD M4X16
	N32-3000-41	SCREW, FLAT HD M3X6
	n a a ~ 4 V V 8 - 4 I	SCREW, OVAL HD M4X8

```
REF. NO PARTS NO
                                                                                                                                   NAME & DESCRIPTION
                                                                                                                SCREW, FLAT HD TAPTITE 2X8
SCREW, BINDING TAPTITE 3X8
SCREW, BINDING TAPTITE 3X12
SCREW, BINDING TAPTITE 3X14
SCREW, BINDING TAPTITE 4X14
                                 N 8 8 - 4 0 1 2 - 4 1
                                 N 8 9 - 3 0 0 8 - 4 1
N 8 9 - 3 0 1 2 - 4 1
                                 N 8 9 - 3 0 1 4 - 4 1
                                N89-4014-41
C90-0957-05
                                                                                                                CAP. ELECTRO
CAP. ELECTRO
CAP. ELECTRO
CAP. ELECTRO
CAP. METALIZED
                                                                                                                                                                                                 15000
                                                                                                                                                                                                                                                          63 V
  C 2
C 3
C 4
                                                                                                                                                                                                                                                         50 V
                                 C90-0919-15
                                                                                                                                                                                                   1000
                                C91-0594-05
                                                                                                                                                                                                 0.1
                                                                                                                                                                                                                                                          2 5 0 V
  C 5
C 6
                                      NO USE
                                 E31-2686-05
                                                                                                                 SPARK KILLER ASS'Y
                                CE04EW1E101M
CE04EW1E101M
                                                                                                                CAP. ELECTRO
CAP. ELECTRO
                                                                                                                                                                                                                               20%
                                                                                                                                                                                                                                                  25 V
25 V
  C 1 1
                                                                                                                                                                                                 100
                                                                                                                 THYRISTOR
                                CR09C
  D 2
                                                                                                                 THVRISTOR
                                 AR4133S
                                                                                                                LED: RED
                                AR4133S
BG4133S
TNR15G431K
                                                                                                                 LED: RED
LED: GREEN
  D 9
  D10
  D 1 1
                                                                                                                 VARISTOR
                                                                                                                EDGE CARD CONNECTOR
  P 2
                                 F10-3661-05
  R 1 0
                                R92-1195-05
                                                                                                                RES. FIXED
                                                                                                                                                                                                 0.036 5%
                                R 9 2 - 1 1 5 8 - 0 5
  R 1 4
                                                                                                                RES. CARBON
                                                                                                                                                                                               470 10%
                                                                                                                                                                                                                                                          2 0 W
  R 2 0
                                R 9 2 - 1 1 5 9 - 0 5
                                                                                                                RES. CARBON
                                                                                                                                                                                               220 10%
                                                                                                                                                                                                                                                         204
                                                                                                               SWITCH (CIRCUIT PROTECTOR)
THERMAL SENSOR
POWER TRANSFORMER
CHOKE COIL
  S 1
                                559-1502-05
                                S51-1518-05
L01-9556-15
L15-0408-05
  T 1
  T 2
  V R 1
                                R29-0505-05
                                                                                                                                                                                                 10K
                                R 0 5 - 3 5 1 1 - 0 5
A 0 1 ~ 1 1 5 2 - 0 3
                                                                                                             V.R. 10K
CASE
CHASSIS
PAMEL (DIECAST)
DECORATIVE PANEL
ESCUTCHEON
SERIAL NO. PLATE
INLET SOCKET
TERMINAL BLOCK 4P
TERMINAL BLOCK 12P
TERMINAL BLOCK 12P
TERMINAL,GLAY
TERM
                                                                                                                CASE
                               A 0 1 ~ 1 1 5 2 ~ 0 3

A 1 0 ~ 1 4 4 6 ~ 2 2

A 2 0 ~ 2 7 9 4 ~ 0 5

A 2 1 ~ 1 0 8 1 ~ 0 3

B 0 7 ~ 0 7 1 3 ~ 0 4

B 4 0 ~ 2 7 6 5 ~ 0 4

E 18 ~ 0 3 6 3 ~ 0 5
                               E 18-0363-05
E 20-0491-05
E 20-1291-05
E 21-06653-03
E 21-0665-03
  1.0
  12
                              E 2 1 - 0 6 6 6 - 0 3

E 2 9 - 0 5 0 6 - 0 4

E 3 0 - 1 8 7 3 - 0 5

E 3 0 - 1 8 1 9 - 1 5

E 3 0 - 1 8 2 1 - 1 5

E 3 0 - 1 8 8 1 - 0 5

F 0 1 - 0 8 5 3 - 1 4
13
14A
14B
14C
14D
  14E
                                                                                                              UL/CSA POWER CORD SET
HEAT SINK
HEAT SINK
FUSE(6.4X30NM) 12A/250V
FUSE(6.4X30NM) 6A/250V
CAP FOR DP-652
INSULATOR
LEG
CLAMPER
 15
16
17 A
17 B
                               F01-0854-34
F05-1232-05
                               F 0 5 - 6 0 2 8 - 0 5
F 1 9 - 0 7 1 2 - 0 5
F 2 0 - 0 6 5 7 - 2 5
18
                               J02-0049-14
J11-0504-05
J13-0506-05
2.0
                                                                                                             CLAMPER
FUSE HOLDER
HOLDER FOR OUTPUT LEAD
BRACKET, RIGHT
BRACKET, LEFT
BRACKET, FOR TRANSISTOR
BRACKET, FOR TRANSISTOR
BRACKET, FOR HEAT SINK
BRACKET, FOR HEAT SINK
BRACKET, FOR COMNECTOR
BRACKET, FOR PCB
HANDLE
KNOR
22
                               J 2 1 - 0 3 9 2 - 0 4
J 2 1 - 2 9 4 8 - 0 4
23
                                J21-2949-04
25
                              J 2 1 - 2 9 4 9 - 0 4
J 2 1 - 4 5 5 7 - 0 4
J 2 1 - 4 5 5 8 - 0 4
J 2 1 - 4 5 5 9 - 1 4
J 2 1 - 4 5 6 0 - 0 4
27
29
30
                               J21-4563-04
31
                              J 2 1 - 4 5 6 3 - 0 4
J 2 1 - 4 5 7 0 - 2 3
K 0 1 - 0 5 4 4 - 0 5
K 2 1 - 0 8 7 7 - 1 3
K 2 7 - 0 5 2 8 - 1 4
T 4 0 - 0 4 2 2 - 0 5
                                                                                                               KNOB
KNOB, FOR PUSH SW
34
36
                                                                                                               FAN
AMPLIFIER UNIT
                              X 7 3 - 1 6 7 0 - 0 1
X 7 7 - 1 4 0 0 - 0 1
37
                                                                                                              OVP UNIT
40
                              X81-1590-00
X81-1980-06
                                                                                                             RECTIFIER UNIT
```

		PD35-10D
	(45	36-1250-00)
	PARTS NO B40-2857-03	NAME & DESCRIPTION NAME PLATE (KENWOOD)
	B 4 1 - 0 7 8 1 - 0 4 B 4 2 - 1 9 3 0 - 0 4	CAUTION LABEL (FUSE) LABEL, [0 100 120 0 100 120]
	B 4 2 - 38 2 0 - 0 5 B 5 0 - 7 5 8 5 - 3 0	LABEL, [50X15] INSTRUCTION MANUAL: JAPANESE
	B 5 0 - 7 7 8 6 - 3 0 E 2 3 - 0 5 4 1 + 0 5	INSTRUCTION HANUAL: JAPANESE EARTH LUG
	E 2 3 - 0 5 6 4 - 0 5 E 2 9 - 0 5 3 6 - 1 4	EARTH LUG SHORTING BAR,CONTROL TERMINAL
	E 29 - 05 3 7 - 1 4 F 2 0 - 06 4 7 - 05	SHORTING BAR, REAR OUTPUT INSULATOR, FOR TRANSISTOR
	11 0 1 - 5 7 9 1 - 2 4	CARTON BOX FOAMED STYRENE PAD (F)
	H 10 - 28 2 3 - 1 2 H 10 - 28 2 4 - 1 2	FOAMED STYRENE PAD (R) RING/HOLDER FOR LED
	J21-2912-05 J32-0876-05	B O S S
	J61-0049-05 J61-0525-05	WIRE BAND CARD SPACER
	J 6 1 - 0 5 2 6 - 0 5 N 0 9 - 0 6 2 3 - 0 4	LOCKING CARD SPACER SCREW, SENS PAN HD M3X8
	N 0 9 - 0 6 2 6 - 0 4 N 0 9 - 0 6 5 4 - 0 5	SCREW, SEMS PAN HD M3X10 SCREW, SEMS PAN HD M4X8
	N 0 9 - 0 7 2 3 - 0 5 N 0 9 - 0 7 2 5 - 1 5	SCREW, SENS PAN HD N5X10 SCREW, SENS PAN HD N4X12
	N 0 9 - 0 7 3 2 - 0 5 N 0 9 - 0 7 3 5 - 0 5	SCREW, TRUSS HD M5X8 SCREW, SEMS PAN HD M4X6
	N 0 9 - 0 7 4 8 - 0 4 N 1 4 - 0 4 0 4 - 0 4	SCREW, SENS PAN HD M4X12 FLANGE NUT M3
	N 1 4 - 0 6 2 0 - 0 5 N 1 9 - 0 1 9 1 - 0 5	FLANGE NUT N4 INSULATING WASHER
	N 19-0717-05 N 19-0726-04	INSULATING WASHER WASHER WASHER
	N 3 2 - 3 0 0 6 - 4 1 N 3 2 - 3 0 0 8 - 4 1	SCREW, FLAT HD M3X6 SCREW, FLAT HD M3X8
	N 3 3 - 4 0 0 8 - 4 1	SCREW, OVAL HD M4X8 SCREW, FLAT HD TAPTITE 2X8
	N 8 8 - 4 0 1 2 - 4 1 N 8 9 - 3 0 0 8 - 4 1	SCREW, BINDING TAPTITE 3X8
	N 8 9 - 3 0 1 2 - 4 1 N 8 9 - 3 0 1 4 - 4 1	SCREW, BINDING TAPTITE 3X14
C 1	N 8 9 - 4 0 1 4 - 4 1 C 9 0 - 0 9 5 7 - 0 5	SCREW, BINDING TAPTITE 4X14 CAP. ELECTRO 15000 63V
C 2 C 3	C 9 0 - 0 9 1 9 - 1 5 C 9 0 - 0 9 2 0 - 0 5	CAP. ELECTRO 1000 20% 50V CAP. ELECTRO 1000 20% 50V
C 4 C 5	C91-0594-05 NO USE	CAP. METALIZED 0.1 10% 250
C 6	E31-2686-05 CE04EW1E101M	SPARK KILLER ASS'Y CAP. ELECTRO 100 20% 25V
C11	CEO4EW1E101M	CAP. ELECTRO 100 20% 25V
D 2	C R O 9 C	THYRISTOR
D 8 D 9	A R 4 1 3 3 S A R 4 1 3 3 S	LED; RED LED: RED
D 1 0 D 1 1	B G 4 1 3 3 S T N R 1 5 G 4 3 1 K	LED; GREEN VARISTOR
P 1 P 2	E 1 0 - 1 0 6 1 - 0 5 E 1 0 - 3 6 6 1 - 0 5	EDGE CARD CONNECTOR EDGE CARD CONNECTOR
R 1 0	R 9 2 - 1 1 9 5 - 0 5	RES. FIXED 0.036 5% 40W
R 1 4	R 9 2 - 1 1 5 8 - 0 5	RES. CARBON 470 10% 20W
R 2 0	R 9 2 - 1 1 5 9 - 0 5	RES. CARBON 220 10% 20W
S 1	S 5 9 - 1 5 0 2 - 0 5	SWITCH (CIRCUIT PROTECTOR) THERMAL SENSOR
S R T 1	S 5 1 - 1 5 1 8 - 0 5 L 0 1 - 9 5 5 6 - 1 5	POWER TRANSFORMER
T 2	L15-0408-05	CHOKE COIL
U 2 0 3 U 2 0 4	U P C 7 8 0 5 H U P C 7 8 0 5 H	IC, VOLTAGE REGULATOR IC, VOLTAGE REGULATOR
V R 1 V R 2	R 29-0505-05 R 05-3511-05	V.R. 10K V.R. 10K
1	A 0 1 - 1 1 5 2 - 0 3 A 1 0 - 1 4 4 6 - 2 2	CASE CHASSIS
3	A 20-2794-05	PANEL (DIECAST) DECORATIVE PANEL
4 5	A 2 1 - 1 0 8 8 - 0 3 B 0 7 - 0 7 1 3 - 0 4	ESCUTCHEON SERIAL NO. PLATE
6 7	B 4 0 - 2 7 6 5 - 0 4 E 1 8 - 0 3 6 3 - 0 5	INLET SOCKET TERMINAL BLOCK 4P
8	E 20-0491-05 E 20-1291-05	TERMINAL BLOCK 12P
10 11	E 21-0653-03 E 21-0665-03	TERHINAL, BULE TERHINAL, GLAY
1 2 1 3	E 21-0666-03 E 29-0506-04	TERMINAL, RED SHORTING BAR
144	E 30-1873-05 E 30-1819-15	JIS POWER CORD SET IEC POWER CORD SET
14B		SAA POWER CODE SET

i		PARTS NO	NAME & DESCRIPTION
	14E	E30-1881-05	UL/CSA POWER CORD SET
ı	15	F01-0853-14	
1	16	F01-0854-34	
	17 A	F05-6028-05	FUSE(6.4X30NN) 6A/250V
1		F 0 5 - 1 2 3 2 - 0 5	FUSE(6.4X30NN) 12A/250
Į.	1.8	F19-0712-05	CAP FOR DP-652
1		F 2 0 - 0 6 5 7 - 2 5	INSULATOR
ļ	2 0	J 0 2 - 0 0 4 9 - 1 4	LEG
1	2 1	J11-0504-05	
	2 2	J13-0506-05	FUSE HOLDER
i	23	J 2 1 - 0 3 9 2 - 0 4	HOLDER FOR OUTPUT LEAD
1	2 4	J 2 1 - 2 9 4 8 - 0 4	BRACKET, RIGHT
1	2 5	J 2 1 - 2 9 4 9 - 0 4	BRACKET, LEFT
1	26	J21-4513-03	BRACKET, FOR PCB
	27	J 2 1 - 4 5 5 7 - 0 4	BRACKET, FOR TRANSISTOR
1	28	J 2 1 - 4 5 5 8 - 0 4	BRACKET, FOR TRANSISTOR
l.	2 9		BRACKET, FOR HEAT SINK
1	30	J 2 1 - 4 5 6 0 - 0 4	BRACKET, FOR HEAT SINK
	3 1	J 2 1 - 4 5 6 3 - 0 4	BRACKET, FOR CONNECTOR
i	3 2	J 2 1 - 4 5 7 0 - 2 3	BRACKET, FOR PCB
1		K 0 1 - 0 5 4 4 - 0 5	HANDLE
		K 2 1 - 0 8 7 7 - 1 3	KNOB
1	3 5	K 27 - 05 28 - 14	KNOB, FOR PUSH SW
	36	T40-0422-05	FAN
		X73-1680-01	AMPLIFIER UNIT
1	38		DPH UNIT
ı	3 9		OVPUNIT
1	40	X 8 1 - 1 5 9 0 - 0 0	RECTIFIER UNIT
		X81-1980-06	C. I UNIT
		B 1 9 - 0 7 4 3 - 0 3	FILTER
1	43	F 0 7 - 0 9 2 8 - 0 5	METER COVER

PD18-10 AMP UNIT

	(X	73-	1	6	;	7	0	-C	C))	
0 4		Т	E R				E Al	&	D	E	s

	(///	0 107	0 001		
REF. NO	PARTS NO	N A	ME & DESCR	IPTION	
* L	E 2 3 - 0 0 4 7 - 0 4	TERNI			
	F01-0846-05	HEAT	SINK, EXTRU	DED	
	F01-0856-14	HEAT	SINK		
	J 25 - 5099 - 22	PCB (UNMOUNTED)		
	N 0 9 - 0 6 2 3 - 0 4	SCREW	, SEMS PAN	HD N3X8	
Cl	CF92V1H473J	CAP.	POLYESTER	0.047 5%	5 0 V
C 2	CF92V1H473J	CAP.	POLYESTER	0.047 5%	50 V
C 3	C90-0924-05	CAP.	ELECTRO	330 20%	5 0 V
C 4	CEO4EWIE100M		ELECTRO	10 20%	25 ¥
C 5	CE04DW1E221N		ELECTRO	220 20%	2 5 V
C 6	C90-0939-05		ELECTRO	470 20%	35 V
C 7	CE04EW1E100M		ELECTRO	10 20%	25 V
C B	CE04EW1E100M		ELECTRO	10 20%	25 ¥
C 9	CE04DW1E221N		ELECTRO	220 20%	25 ¥
C 1 0	C90-0924-05		ELECTRO	330 20%	50 V
CII	CE04EW1E101N		ELECTRO	100 20%	25 V
C 1 2	CE04EW1HR33M	CAP.	ELECTRO	0.33 20%	50 V
C 1 3	CE04EW184R7N	CAP.	ELECTRO	4.7 20%	5 0 V
C 1 4	CE04EW1E100M	CAP.	ELECTRO	10 20%	25 V
C 1 5	CEO4AWIHO10M	CAP.	ELECTRO	1 20%	50 V
C 1 6	CC45CH1H101J	CAP.	CERANIC	100P 5%	50 V
C 1 7	CE04AW1H010N	CAP.	ELECTRO	1 20%	50 V
C 1 8	CC45CH1H101J	CAP.	CERANIC	100P 5%	50 V
C 1 9	CE04AW1H2R2M	CAP.	ELECTRO	2.2 20%	5 0 V
C 2 0	CQ92P2A471J	CAP.	HYLAR	470P 5%	100 V
C 2 I	NO USE				
C 2 2	C 0 9 2 P 2 A 3 3 2 J	CAP.	MYLAR	3300P 5%	100 V
C 2 3	NO USE				
C 2 4	CF92V1H332J	CAP.	POLYESTER	3300P 5%	50 V
024	0.02.10000				
C 2 8	CC45CH1H101J	CAP.	CERANIC	100P 5%	5 0 V
C 2 9	NO USE				
C 3 0	CC45CH1H101J	CAP.	CERANIC	100P 5%	5 0 V
C 3 1	CF92V1H103J	CAP.	POLYESTER	0.01 5%	50 V
C 3 2	CC45CH1H101J	CAP.	CERANIC	100P 5%	50 V
C 3 3	CF92V1H103J	CAP.	POLYESTER	0.01 5%	50 V
C 3 4	CF92V1 II 103 J	CAP.	POLYESTER	0.01 5%	5 0 V
C 3 5	CF92V1H103J	CAP.	POLYESTER	0.01 5%	50 Y
C 3 6	CF92V1H473J	CAP.	POLYESTER	0.047 5%	50 Y
C 3 7	CF92V1H103J	CAP.	POLYESTER	0.01 5%	5 0 Y
C38	CF92V1H473J	CAP.	POLYESTER	0.047 5%	5 0 V
C39	CF92V1H473J	CAP.	POLYESTER	0.047 5%	50 V
C 4 0	CF92V1H473J	CAP.	POLYESTER	0.047 5%	50 V
C 4 1	CF92V1H473J	CAP.	POLYESTER	0.047 5%	5 0 V
C 4 2	CC45CH1H101J	CAP.	CERANIC	100P 5%	5 0 V
C 4 3	CC45CH1H101J	CAP.	CERANIC	100P 5%	5 0 V
C 4 4	CF92V1H472J	CAP.	POLYESTER	4700P 5%	50 V
C 4 5	CF92 V 1 H 4 7 2 J	CAP.	POLYESTER	4700P 5%	50 V
					"
C 5 0	CF92V1H473J	CAP.	POLYESTER	0.047 5%	5 0 V
C 5 1	CF92V1H473J	CAP.	POLYESTER	0.047 5%	50 V
C 5 2	C 9 0 - 0 9 2 4 - 0 5	CAP.	ELECTRO	330 20%	50 V
C 5 3	CF92V1H103J	CAP.	POLYESTER	0.01 5%	50 Y
C 5 4	CF92V1H103J	CAP.	POLYESTER	0.01 5%	50 V
C 5 5	CE04EW1E100M	CAP.	ELECTRO	10 20%	25 V
C 5 6	C90-0924-05	CAP.	ELECTRO	330 20%	50 ¥
C 5 7	CF92V1H103J	CAP.	POLYESTER	0.01 5%	50 V 50 V
C 5 8	CF92V1H103J	CAP.	POLYESTER	0.01 5% 10 20%	25 V
C 5 9	CE04EW1E100N	CAP.	ELECTRO	10 20%	2 3 Y

REF. N C60 C61 C62 C63 C64	0 PARTS NO CF92V1H103J CC45CH1H470J C91-0595-05 CC45CH1H101J CF92V1H102J	NAME & DESC CAP. POLYESTER CAP. CERAMIC CAP. PLASTIC CAP. CERAMIC	0.01 5% 47P 5% 0.033 2% 100P 5%	5 0 V 5 0 V 1 0 0 V 5 0 V	REF. NO Q 2 0 Q 2 1 Q 2 2 Q 2 3	PARTS NO 2 S K 1 7 0 (B L) 2 S C 2 7 8 5 (F) 2 S C 3 6 2 1 (0) 2 S C 3 6 2 1 (0)	NAME & DES FET, N-CHANNE TR. SI, NPN TR. SI, NPN TR. SI, NPN	
C 6 5 C 6 6 C 6 7 C 6 8 C 6 9	CF92V1H103J CF92V1H472J CE04EW1E100M CF92V1H103J CF92V1H473J	CAP. POLYESTER CAP. POLYESTER CAP. POLYESTER CAP. ELECTRO CAP. POLYESTER CAP. POLYESTER	1000P 5% 0.01 5% 4700P 5% 10 20% 0.01 5% 0.047 5%	5 0 V 5 0 V 5 0 V 2 5 V 5 0 V	R 1 R 2 R 3 R 4 R 5	R D I 4 B B 2 C I 0 I J R D I 4 B B 2 C I 0 I J R D I 4 D B 3 D 4 7 I J R 9 2 - I I 6 I - 0 5 R D I 4 D B 2 H 5 I 2 J	RES. CARBON RES. CARBON RES. CARBON RES. CARBON RES. CARBON	100 5% 1/6W 100 5% 1/6W 470 5% 2W 560 5% 1/4W 5.1K 5% 1/2W
C 7 2 C 7 3 C 7 4 C 7 5 C 7 6	C F 9 2 V 1 H 1 0 3 J C F 9 2 V 1 H 2 2 4 J C C 4 5 C H 1 H 1 0 1 J C E 0 4 E W 1 E 1 0 0 M C E 0 4 E W 1 C 4 7 1 M	CAP. POLYESTER CAP. POLYESTER CAP. CERAMIC CAP. ELECTRO CAP. ELECTRO	0.01 5% 0.22 5% 100P 5% 10 20% 470 20%	5 0 V 5 0 V 5 0 V 2 5 V 1 6 V	R 6 R 7 R 8 R 9 R 1 0 R 1 1	R D 1 4 B B 2 C 1 0 2 J R D 1 4 D B 2 H 12 R 7 J R D 1 4 B B 2 C 1 5 3 J R 9 2 - 1 1 4 4 - 0 5 R 9 2 - 1 1 4 4 - 0 5 R D 1 4 D B 3 D 4 7 1 J	RES. CARBON RES. CARBON RES. CARBON RES. MRTAL FII RES. MRTAL FII RES. CARBON	
D 1 D 2 D 3 D 4 D 5	S 1 V B 2 O S 1 V B 2 O D S A 1 A 2 D S A 1 A 2 N O U S E	DIODE, BRIDGE DIODE, BRIDGE DIODE DIODE			R 1 2 R 1 3 R 1 4 R 1 5 R 1 6	R 92 - 1 1 6 1 - 0 5 R D 1 4 D B 2 H 5 1 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 D B 2 H 2 R 7 J R D 1 4 B B 2 C 1 5 3 J	RES. CARBON RES. CARBON RES. CARBON RES. CARBON RES. CARBON	560 5% 1/4W 5.1K 5% 1/2W 1K 5% 1/6W 2.7 5% 1/2W 15K 5% 1/6W
D 6 D 7 D 8 D 9 D 1 0	R D 1 3 F (B 2) M T 7 9 . 1 J C 1 S S 1 3 2 R D 1 3 F (B 2) M T 7 9 . 1 J C	DIODE, ZENER DIODE, ZENER DIODE DIODE, ZENER DIODE, ZENER	12.97 V 9.07 V 12.97 V 9.07 V		R 1 7 R 1 8 R 1 9 R 2 0 R 2 1	R D 1 4 B B 2 C 6 8 2 J R 9 2 - 1 1 3 8 - 0 5 R 9 2 - 1 1 3 1 - 0 5 R 9 2 - 1 1 3 5 - 0 5 R 9 2 - 1 4 8 4 - 0 5	RES. CARBON RES. METAL FIL RES. MRTAL FIL RES. METAL FIL RES. FIXED	H 430 1% 1/5W
D11 D12 D13 D14 D15 D16 D17 D18 D19 D20	1 S S 1 3 2 M T Z 4 . 7 J A 1 S S 1 3 2 H Z T 7 A 3 H Z T 7 A 3 I S S 1 3 2 1 S S 1 3 2	DIODE DIODE DIODE DIODE DIODE, ZENER DIODE, ZENER DIODE DIODE DIODE DIODE DIODE DIODE DIODE	4.56 V 6.75 V 6.75 V		R 2 4 R 2 5 R 2 6 R 2 7 R 2 8 R 2 9 R 3 0 R 3 1 R 3 2 R 3 3	R D 1 4 B B 2 C 1 5 3 J R D 1 4 B B 2 C 1 5 3 J R D 1 4 B B 2 C 2 2 4 3 J R D 1 4 B B 2 C 8 2 6 J R D 1 4 B B 2 C 1 8 2 J R D 1 4 B B 2 C 1 8 1 J R D 1 4 B B 2 C 1 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 2 - 1 1 5 0 - 0 5 R D 2 - 1 1 3 8 - 0 5	RES. CARBON RES. CARBON RES. CARBON RES. CARBON RES. CARBON RES. CARBON RES. METAL FIL RES. CARBON	1 K 5% 1/6 W H 100 K 1% 1/5 W
D 2 1 D 2 2 D 2 3 D 2 4 D 2 5 D 2 6 D 2 7 D 2 8 D 2 9 D 3 0 D 3 1	1 S S 1 3 2 1 S S 1 3 2 M T 7.5 5. 1 J B 1 S S 1 3 2 M T 7.5 1. 1 J B D S A 1 A 2	DIODE , ZENER DIODE , ZENER	5.07¥	-	R 3 4 R 3 5 R 3 6 R 3 7 R 3 8 R 3 9 R 4 0 R 4 1 R 4 2 R 4 3	R D 1 4 B B 2 C 1 5 1 J R D 2 - 1 1 4 6 - 0 5 R N 1 4 B E 2 E 5 6 0 1 D R D 1 4 B B 2 C 1 0 2 J R D 2 - 1 1 5 0 - 0 5 R D 2 - 1 1 3 8 - 0 5 R D 1 4 B B 2 C 2 2 1 J R D 2 - 1 1 4 7 - 0 5 R N 1 4 B E 2 II 1 0 0 2 D K W R N 1 4 B E 2 II 1 8 0 2 D K W	RES. METAL FIL RES. CARBON RES. METAL FIL	150 5% 1/6W 11K 1% 1/5W 15.6K 0.5% 1/4W 1K 55% 1/6W 100K 1% 1/5W 220 5% 1/6W 16.2K 1% 1/5W 16.2K 1% 1/5W 116.2 K 1% 1/5W
D 3 2 D 4 0 D 4 1 D 4 2 D 4 3 D 4 4 D 4 5 D 4 6 D 4 7	D S A 1 A 2 S 1 V B 2 O S 1 V B 2 O D S A 1 A 2 D S A 1 A 2 D S A 1 A 2 D S A 1 A 2 D S A 1 A 2 I S A 1 A 2 D S A 1 A 2 D S A 1 A 2	DIODE DIODE, BRIDGE DIODE, BRIDGE DIODE DIODE DIODE DIODE DIODE DIODE DIODE DIODE DIODE	6.12V		R 4 4 R 4 5 R 4 6 R 4 7 R 4 9 R 5 0 R 5 1 R 5 2 R 5 3	R 9 2 - 0 1 5 0 - 0 5 RN 1 4 B E 2 R 10 0 0 2 D K W RN 1 4 B E 2 R 10 0 0 2 D K W RD 1 4 B B 2 C 1 0 2 J R 9 2 - 1 1 3 5 - 0 5 RD 1 4 B B 2 C 1 0 2 J R 9 2 - 1 1 3 5 - 0 5 RD 1 4 B B 2 C 1 0 2 J R 9 2 - 1 1 3 4 - 0 5 RD 1 4 B B 2 C 1 0 2 J R 9 2 - 1 1 3 4 - 0 5 RD 1 4 B B 2 C 1 6 2 J R 9 2 - 1 1 4 0 - 0 5	RES. METAL FIL RES. CARBON RES. CARBON RES. METAL FIL RES. CARBON RES. CARBON RES. CARBON RES. CARBON RES. CARBON	M 374 0.5% 1/2W 1K 5% 1/6W 1K 5% 1/6W M 2.7K 1% 1/5W 1K 5% 1/6W 1K 5% 1/6W 1K 5% 1/6W 1K 5% 1/6W
D 4 8 D 4 9 D 5 0 D 5 1 D 5 2 D 5 3 D 5 4 D 5 5 D 5 6 D 5 7	1 S S 1 3 2 1 S S 1 3 2 1 S S 1 3 2 R D 1 0 F (B 2) R D 1 0 F (B 2) 1 S S 1 3 2 1 S S 1 3 2	DIODE DIODE DIODE DIODE, ZENER DIODE, ZENER DIODE DIODE DIODE DIODE DIODE DIODE DIODE	9.75 V 9.75 V		R 5 5 R 5 6 R 5 7 R 5 8 R 5 9 R 6 0 R 6 1 R 6 2 R 6 3 R 6 4	R92-1131-05 RD14BB2C12J RD14BB2C10J RD14BB2C102J RD14BB2C102J RD14BB2C102J RD14BB2C102J RD14BB2C102J RD14BB2C12J RD14BB2C13Z RD14BB2C13Z RD14BB2C13Z RD14BB2C13Z RD14BB2C473J RD14BB2C473J	RES. METAL FIL RES. CARBON	1 4 3 0 1 % 1/5 W 1 / 5 W 1 / 6 W 1 0 0 5 % 1 / 6 W 1 K 5 % 1 / 6 W 1 K 5 % 1 / 6 W 1 K 5 % 1 / 6 W 1 K 5 % 1 / 6 W 1 . 2 K 5 % 1 / 6 W 4 7 K 5 % 1 / 6 W 4 7 K 5 % 1 / 6 W
D 5 8 D 5 9 D 6 0 D 6 1 D 6 2 D 6 3 D 6 4 D 6 5	1 S S 1 3 2 M T Z 8 . 2 J C 1 S S 1 3 2 1 S S 1 3 2	DIODE DIODE, ZENER DIODE DIODE DIODE DIODE DIODE DIODE DIODE	8.24V		R 6 5 R 6 6 R 6 7 R 6 8 R 6 9 R 7 0 R 7 1 R 7 2	RD14DB3A10iJ R92-1132-05 RD14BB2C104J R92-1150-05 R92-1150-05 R92-1137-05 RD14BB2C471J R92-1143-05	RES. CARBON RES. METAL FIL RES. CARBON RES. METAL FIL RES. METAL FIL RES. METAL FIL RES. CARBON RES. METAL FIL	100 5% 1W 100 5% 1/5W 100 K 5% 1/6W 100 K 1% 1/5W 4.7K 1% 1/5W K 150 1% 1/5W 470 5% 1/6W
P 3 P 4	E 4 0 - 0 2 7 3 - 0 5 E 4 0 - 0 2 7 3 - 0 5	PIN CONNECTOR PIN CONNECTOR	2 P 2 P		R 7 3 R 7 4 R 7 5	R 9 2 - 1 1 4 8 - 0 5 R D 1 4 B B 2 C 1 0 4 J R D 1 4 B B 2 C 1 0 4 J	RES. METAL FIL RES. CARBON RES. CARBON	1 18K 1% 1/5W 100K 5% 1/6W
Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q11 Q12 Q13 Q14 Q15	2 S D 1 4 0 6 (Y) 2 S C 2 7 8 5 (F) 2 S C 2 7 8 5 (F) 2 S A 1 4 0 8 (0) 2 S B 1 0 1 5 (Y) 2 S A 1 1 7 5 (F) 2 S A 1 1 7 5 (F) 2 S C 3 6 6 4 (F) 2 S C 2 7 8 5 (F) 2 S C 2 7 8 5 (F) 2 S C 2 4 5 9 (G R) 2 S C 3 6 2 1 (0) 2 S K 1 7 7 0 (B L) 2 S K 1 7 0 (B L)	TR. SI, MPN TR. SI, MPN TR. SI, MPN TR. SI, PNP TR. SI, PNP TR. SI, PNP TR. SI, PNP TR. SI, MPN TR. SI			R 7 6 R 7 7 R 7 8 R 7 9 R 8 0 R 8 1 R 8 2 R 8 3 R 8 4 R 8 5 R 8 6 R 8 7 R 8 8 R 8 9 R 9 0 R 9 1	R 9 2 - 1 1 5 0 - 0 5 R 9 2 - 1 1 4 1 - 0 5 R 9 2 - 1 1 3 7 - 0 5 R D 1 4 B B 2 C 4 7 1 J R 9 2 - 1 1 4 3 - 0 5 R 9 2 - 1 1 4 8 - 0 5 R 9 2 - 1 1 4 2 - 0 5 R D 1 4 B B 2 C 1 0 4 J R 9 2 - 1 1 5 0 - 0 5 R D 1 4 B B 2 C 1 0 1 J R 9 2 - 1 1 3 6 - 0 5 R D 1 4 B B 2 C 1 0 1 J R 9 2 - 1 1 4 2 - 0 5 R D 1 4 B B 2 C 3 3 3 J	RES. METAL FIL RES. CARBON RES. METAL FIL RES. CARBON RES. METAL FILI RES. CARBON RES. METAL FILI RES. CARBON RES. METAL FILI RES. CARBON RES. CARBON	1 100 K 1 X 1/5 W 1 4.7 K 1 X 1/5 W 1 4.7 K 1 X 1/5 W 1 1/5 W 470 5 X 1/6 W 1 6.8 K 1 X 1/5 W 1 5.1 K 1 X 1/5 W 1 100 K 5 X 1/6 W 1 100 K 1 X 1/5 W 1 1 5.1 K 1/6 W 1 5.1 K 1 X 1/6 W 1 5.1 K 1 X 1/5 W 1 5.1 K 1 X 1/5 W 1 X 1/
017	2 S K 1 7 O (B L) 2 S K 1 7 O (B L)	FET, N-CHANNEL FET, N-CHANNEL			R 9 2 R 9 3 R 9 4	R D 1 4 B B 2 C 1 5 3 J R D 1 4 B B 2 C 4 7 3 J	RES. CARBON RES. CARBON RES. CARBON	15K 5% 1/6W 47K 5% 1/6W 47K 5% 1/6W

REF. NO	PARTS NO RD14BB2C750J	NAME & DESCRIPTION RES. CARBON 75 5% 1/6W
R 9 5		JUMPING RES. ZERO OHM (5MM)
R 9 8 R 9 9 R 10 0 R 10 1 R 10 0 R 10 1 R 10 3 R 10 4 R 10 5 R 10 6 R 10 7 R 10 8 R 11 0 R 11 1 R 11 2 R 11 1 R 11 5 R 11 6 R 11 7 R 11 8 R 11 1 R 12 0 R 12 1 R 12 1 R 12 3 R 12 4	R 9 2 - 1 0 6 1 - 0 5 NO USE RD 1 4 BB 2 C 1 0 1 J RD 1 4 BB 2 C 1 0 1 J RD 1 4 BB 2 C 1 0 3 J RD 1 4 BB 2 C 1 0 3 J RD 1 4 BB 2 C 1 0 3 J RD 1 4 BB 2 C 1 2 3 J RD 1 4 BB 2 C 1 2 3 J RD 1 4 BB 2 C 1 2 3 J RD 1 4 BB 2 C 1 2 3 J RD 1 4 BB 2 C 1 0 4 J RD 1 4 BB 2 C 1 0 4 J RD 1 4 BB 2 C 1 0 4 J RD 1 4 BB 2 C 1 0 4 J RD 1 4 BB 2 C 1 0 4 J RD 1 4 BB 2 C 1 0 4 J RD 1 4 BB 2 C 1 0 4 J RD 1 4 BB 2 C 1 0 2 J RD 1 4 BB 2 C 4 7 0 J RD 1 4 BB 2 C 1 0 2 J RD 1 4 BB 2 C 1 0 2 J RD 1 4 BB 2 C 1 0 2 J RD 1 4 BB 2 C 1 0 2 J RD 1 4 BB 2 C 1 0 2 J RD 1 4 BB 2 C 1 0 2 J RD 1 4 BB 2 C 1 0 4 J RD 1 4 BB 2 C 1 0 2 J RD 1 4 BB 2 C 1 0 4 J RD 1 4 BB 2 C 1 0 5 S RD 1 4 BB 2 C 1 0 5 S RD 1 4 BB 2 C 1 0 5 J RD 1 4 BB 2 C 1 0 5 J	RES. CARBON 100 5% 1/6W RES. CARBON 100 5% 1/6W RES. CARBON 3.9K 5% 1/2W RES. CARBON 10K 5% 1/6W RES. CARBON 15K 5% 1/6W RES. CARBON 15K 5% 1/6W RES. CARBON 12K 5% 1/6W RES. CARBON 12K 5% 1/6W RES. CARBON 12K 5% 1/6W RES. CARBON 4.7K 5% 1/6W RES. CARBON 4.7K 5% 1/6W RES. CARBON 2.2K 5% 1/6W RES. CARBON 2.2K 5% 1/6W RES. CARBON 2.2K 5% 1/6W RES. CARBON 6.8K 5% 1/6W RES. CARBON 6.8K 5% 1/6W RES. CARBON 100K 5% 1/6W
R 1 2 7 R 1 2 8 R 1 2 9 R 1 3 0 R 1 3 1 R 1 3 3 R 1 3 3 R 1 3 3 R 1 3 6 R 1 3 7 R 1 3 8 R 1 4 0 R 1 4 2 R 1 4 4	R D 1 4 B B 2 C 9 1 1 J R 9 2 - 1 1 3 3 - 0 5 R D 1 4 B B 2 C 4 7 2 J R D 1 4 B B 2 C 1 0 3 J R 9 2 - 1 1 4 9 - 0 5 R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J R D 1 4 D B 3 A 3 3 0 J R D 1 4 D B 3 A 3 3 0 J R D 1 4 D B 3 A 1 3 0 J R D 1 4 D B 2 H 1 0 2 J N 0 USE R D 1 4 B B 2 C 1 0 3 J	RES. CARBON 910 5% 1/6W RES. METAL FILM 5.6K 1% 1/5W RES. CARBON 4.7K 5% 1/6W RES. CARBON 10K 5% 1/6W RES. METAL FILM 22K 1% 1/5W RES. CARBON 10K 5% 1/6W RES. CARBON 10K 5% 1/6W RES. CARBON 10K 5% 1/6W RES. CARBON 1 1 5% 1/6W RES. CARBON 1 5% 1/2W
U 1 U 2 U 3 U 4 U 5 U 6 U 7	N J M O 7 2 B D N J M 7 8 I 5 A N J M O 7 2 B D O P O 7 D P O P O 7 D P U P C 4 5 5 B C N J M O 7 2 B D	IC, JFET INPUT OP AMP IC, VOLTAGE REGULATOR IC, JFET INPUT OP AMP IC, OPERATIONAL AMPRIFIER IC, OPERATIONAL AMPRIFIER IC, OP AMP IC, JFET INPUT OP AMP
U 1 0 U 1 1 U 1 2 U 1 3 U 1 4 U 1 5	N J M 7 8 1 5 A U P C 7 9 1 5 H - 1 U P C 4 5 5 8 C N J H O 7 2 B D H A 1 7 5 5 5 P S T L P 5 2 1 - 1 (A)	IC, VOLTAGE REGULATOR IC, 3-TERMINAL REGULATOR IC, OP AMP IC, JFET INPUT OP AMP IC, TIMER IC, PHOTO COUPLER
V R 1 V R 2 V R 3 V R 4 V R 5 V R 6 V R 7 V R 8 V R 9 V R 1 V R 1	R 1 2 - 45 0 8 - 05	RES. SEMI FIXED 2 KB RES. SEMI FIXED 5 OKB RES. SEMI FIXED 5 OKB RES. SEMI FIXED 5 OKB RES. SEMI FIXED 1 OKB RES. SEMI FIXED 1 OKB RES. SEMI FIXED 5 OKB
V R 2 0	R 1 2 - 3 5 2 2 - 0 5	RES. SEMI FIXED 10KB

	PD18-1	OD AMP UNIT	
	(X7	73-1680-00)	·
C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C14 C15 C16 C17 C16 C17 C16 C17 C16 C17 C16 C17 C17 C17 C17 C17 C17 C17 C17 C17 C17	PARTS NO E 2 3 - 0 0 4 7 - 0 4 F 0 1 - 0 8 4 6 - 0 5 F 0 1 - 0 8 5 6 - 1 4 J 2 5 - 5 0 9 9 - 2 2 N 0 9 - 0 6 2 3 - 0 4 C F 9 2 V 1 H 4 7 3 J C F 9 2 V 1 H 4 7 3 J C F 9 2 V 1 H 4 7 3 J C F 0 2 0 - 0 9 2 4 - 0 5 C 0 4 E W 1 E 1 0 0 M C E 0 4 D W 1 E 2 2 1 M C 9 0 - 0 9 3 9 - 0 5 C E 0 4 E W 1 E 1 0 0 M C E 0 4 D W 1 E 2 2 1 M C 9 0 - 0 9 2 4 - 0 5 C E 0 4 E W 1 E 1 0 0 M C E 0 4 D W 1 E 2 2 1 M C 9 0 - 0 9 2 4 - 0 5 C E 0 4 E W 1 E 1 0 0 M C E 0 4 D W 1 E 2 2 1 M C 9 0 - 0 9 2 4 - 0 5 C E 0 4 E W 1 E 1 0 1 M C E 0 4 D W 1 E 2 3 M C E 0 4 E W 1 E 1 0 1 M C E 0 4 E W 1 E 1 0 1 M C E 0 4 A W 1 H 0 1 0 M C E 0 4 A W 1 H 10 1 0 M C E 0 4 A W 1 H 10 1 0 M C E 0 5 C H 1 H 1 0 1 J C E 0 4 A W 1 H 10 1 J C E 0 4 A W 1 H 10 1 J C E 0 4 A W 1 H 2 R 2 M C Q 9 2 P 2 A 4 7 1 J N 0 U S E C Q 9 2 P 2 A 3 3 2 J	CAP. POLYESTER 0.047 5 CAP. ELECTRO 330 2 CAP. ELECTRO 10 2 CAP. ELECTRO 220 2 CAP. ELECTRO 10 2 CAP. ELECTRO 10 2 CAP. ELECTRO 10 2 CAP. ELECTRO 220 2 CAP. ELECTRO 10 2 CAP. ELECTRO 330 2 CAP. ELECTRO 330 2 CAP. ELECTRO 10 2 CAP. CERAMIC 10 0 P 5 CAP. ELECTRO 2 2 2 CAP. HYLAR 470 P 5	\$ 50 V \$ 50 V 0 \$ 50 V 0 \$ 25 V 0 \$ 50 V
C 2 3 C 2 4	NO USE CF92V1H332J	CAP. POLYESTER 3300P	5 % 5 0 V
C 2 8	CC45CH1H101J	CAP. CERANIC 100P	5 % 5 0 V
C 2 9 C 3 0 C 3 1 C 3 2 C 3 3 C 3 4 C 3 5 C 3 6 C 3 7 C 3 8 C 3 9 C 4 1 C 4 2 C 4 3 C 4 4 C 4 5	NO USE CC45CH HI 10 1 J CF92VI H 10 3 J CC45CH 1 HI 10 1 J CF92VI H 10 3 J CF92VI H 10 3 J CF92VI H 10 3 J CF92VI H 10 3 J CF92VI H 47 2 J CF92VI H 47 2 J CF92VI H 47 2 J CF92VI H 47 2 J	CAP. POLYESTER 0.01 CAP. CERAMIC 100P CAP. POLYESTER 0.01 CAP. POLYESTER 0.01 CAP. POLYESTER 0.01 CAP. POLYESTER 0.047 CAP. CERAMIC 100P CAP. CERAMIC 100P CAP. POLYESTER 4700P	5 % 5 0 V 5 5 0 V 5 5 0 V 5 5 0 V 5 5 0 V 5 5 0 V 5 5
C50 C51 C52 C53 C54 C55 C55 C57 C58 C60 C61 C62 C64 C66 C67 C68 C70 C71 C73 C75 C76	CF92V1H473J CF92V1H473J CF92V1H473J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CC04EW1E100M CF92V1H103J CC45CH1H470J CF92V1H103J CC45CH1H470J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H473J CE044W1E100M CF92V1H103J CF92V1H473J CE044W1E100M CF92V1H103J CF92V1H103J CF92V1H203J CF92V1H203J CF92V1H203J CF92V1H203J CF92V1H203J CF92V1H203J CF92V1H203J CF92V1H203J CF92V1H203J CF92V1H200M CE044W1E100M CF92V1H103J CF92V1H203J CF92V1H200M		5 % 50 V 50 V 50 X 50 X
C 2 0 1 C 2 0 2 C 2 0 3 C 2 0 4 C 2 0 5 C 2 0 6 C 2 0 7 C 2 0 8 C 2 1 0 C 2 1 1 C 2 1 1	CE04EW1E471M CF92V1H473J CF92V1H473J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J CF92V1H103J	CAP. ELECTRO 470 CAP. ELECTRO 470 CAP. ELECTRO 470 CAP. ELECTRO 470 CAP. POLYESTER 0.047 CAP. POLYESTER 0.01 CAP. POLYESTER 0.01 CAP. POLYESTER 0.01 CAP. POLYESTER 0.01 CAP. POLYESTER 0.047	20 % 25 V 20 % 25 V 20 % 25 V 20 % 50 V 5 % 50 V
D 1 D 2 D 3	S 1 V B 2 O S 1 V B 2 O D S A 1 A 2	DI'ODE, BRIDGE DIODE, BRIDGE DIODE	

REF. N D4	O PARTS NO DSA1A2	NAME & DESC DIODE	CRIPTION		NO PARTS NO	NAME & DES	RIPTION	
D 5 D 6	NO USE RD13F(B2)	DIODE, ZENER	12,97V	R 7	R D 1 4 D B 2 H 2 R 7 J R D 1 4 B B 2 C 1 5 3 J	RES. CARBON RES. CARBON	15K 5% 1/	2 W
D 7 D 8	MTZ9.1JC 1SS132	DIODE, ZENER DIODE	9.07 V	R 9 R 1 0		RES. MRTAL FII RES. MRTAL FII		5 ₩ 5 ₩
D 9 D 1 0	RD13F(B2) MTZ9,1JC	DIODE, ZENER DIODE, ZENER	12.97V	R 1 1 R 1 2	R92-1161-05	RES, CARBON RES, CARBON		₩ 4₩
D 1 1 D 1 2	1 S S 1 3 2 M T Z 4 . 7 J A	DIODE DIODE, ZENER	9.07¥	R 1 3 R 1 4	R D 1 4 D B 2 H 5 1 2 J R D 1 4 B B 2 C 1 0 2 J	RES. CARBON RES. CARBON	5.1K 5% 1/	2 W
D 1 3	1 S S 1 3 2	DIODE	4.56 V	R 1 5 R 1 6	R D 1 4 D B 2 H 2 R 7 J R D 1 4 B B 2 C 1 5 3 J	RES. CARBON RES. CARBON	2.7 5% 1/	2 W
D 1 5	H Z T 7 A 3	DIODE, ZENER DIODE, ZENER	6.75 V 6.75 V	R 1 7	R D 1 4 B B 2 C 6 8 2 J R 9 2 ~ 1 1 3 8 - 0 5	RES. CARBON RES. METAL FIL	6.8K 5% 1/	6 W
D 17	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 19 R 20	R 9 2 - 1 1 3 1 - 0 5 R 9 2 - 1 1 3 5 - 0 5	RES. NRTAL FIL RES. NETAL FIL	N 430 1% 1/	5 W
D 1 8	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 2 1	R 9 2 - 1 4 8 4 - 0 5	RES. FIXED	H 2.7K 1% 1/ 3.3 1% 5	5₩ ₩
D 2 0 D 2 1	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 2 4 R 2 5	R D 1 4 B B 2 C 1 5 3 J R D 1 4 B B 2 C 1 5 3 J	RES. CARBON	15K 5% 1/	
D 2 2 D 2 3	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 2 6 R 2 7	R D 1 4 B B 2 C 2 4 3 J	RES. CARBON RES. CARBON	15K 5% 1/ 24K 5% 1/	6₩
D 2 4 D 2 5	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 2 8	R D 1 4 B B 2 C 8 2 0 J R D 1 4 B B 2 C 1 8 2 J	RES. CARBON RES. CARBON	82 5% 1/ 1.8K 5% 1/	
D 2 6 D 2 7	1 S S 1 3 2 1 S S 1 3 2	DIODE DIODE		R 2 9 R 3 0	R D 1 4 B B 2 C 1 8 1 J R N 1 4 B E 2 E 5 1 O 1 D	RES. CARBON RES. METAL FIL	180 5% 1/ H 5.1K 0.5% 1/	
D 2 8 D 2 9	MTZ5.1JB 1SS132	DIODE, ZENER	5.07V	R 3 1 R 3 2	R D 1 4 B B 2 C 1 0 2 J R 9 2 - 1 1 5 0 - 0 5	RES. CARBON RES. METAL FIL	1K 5% 1/ H 100K 1% 1/	
D 3 0 D 3 1	MTZ5.1JB	DIODE DIODE, ZENER	5.07 V	R 3 3 R 3 4	R 9 2 - 1 1 3 8 - 0 5 R D I 4 B B 2 C 1 5 1 J	RES. METAL FIL RES. CARBON	N 360 1% 1/ 150 5% 1/	
D 3 2	D S A 1 A 2 D S A 1 A 2	DIODE		R 3 5 R 3 6	R 9 2 - 1 1 4 6 - 0 5 R N 1 4 B E 2 E 5 6 0 1 D	RES. METAL FIL RES. METAL FIL	H 11K 1K 1/:	5₩
D 4 0	S 1 V B 2 0	DIODE, BRIDGE		R 3 7	R D 1 4 B B 2 C 1 O 2 J R 9 2 - 1 1 5 0 - 0 5	RES. CARBON RES. METAL FIL	1K 5% 1/	6 W
D 4 1 D 4 2	S 1 V B 2 O D S A 1 A 2	DIODE, BRIDGE DIODE		R 3 9 R 4 0	R 9 2 - 1 1 3 8 - 0 5 R D 1 4 B B 2 C 2 2 1 J	RES. METAL FIL RES. CARBON		5 W
D 4 3 D 4 4	D S A 1 A 2 D S A 1 A 2	D I O D E D I O D E		R 4 1 R 4 2	R 9 2 - 1 1 4 7 - 0 5	RES. METAL FIL RES. METAL FIL	N 16.2K 1K 1/9	5₩
D 4 5 D 4 6	D S A 1 A 2 M T Z 6 . 2 J B	DIODE DIODE, ZENER	6.12V	R 4 3 R 4 4	RN14BE2H1802DKW R92-0150-05	RES. METAL FIL	M 18K 0.5% 1/	2 W
D 4 7 D 4 8	1 S S 1 3 2 1 S S 1 3 2	DIODE DIODE		R 4 5	R N 1 4 B E 2 H 1 O O 2 D K W		ZERO OHM(10N) M 10K 0.5% 1/2	2 W
D 4 9 D 5 0	1 \$ 5 1 3 2 1 \$ 5 1 3 2	DIODE DIODE		R 4 7 R 4 8	KD14BB2C102J	RES. METAL FIL RES. CARBON	1K 5% 1/6	
D 5 1 D 5 2	RD10F(B2) RD10F(B2)	DIODE, ZENER	9.75 V	R49	R D 1 4 B B 2 C 1 O 2 J R 9 2 - 1 1 3 5 - 0 5	RES. CARBON RES. METAL FIL	1K 5% 1/6 H 2.7K 1% 1/5	
D 5 3 D 5 4	1 S S 1 3 2	DIODE, ZENER DIODE	. 9, 75 V	R 5 0 R 5 1	R D 1 4 B B 2 C 1 O 2 J R D 1 4 B B 2 C 1 O 2 J	RES. CARBON RES. CARBON	1K 5% 1/6	
D 5 5	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 5 2 R 5 3	R 9 2 - 1 1 3 4 - 0 5 R D I 4 B B 2 C 1 6 2 J	RES. METAL FIL RES. CARBON	1 1 K 1 K 1 / 5 1.6 K 5 K 1 / 6	5₩
D 5 6 D 5 7	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 5 4 R 5 5	R 9 2 - 1 1 4 0 - 0 5 R 9 2 - 1 1 3 1 - 0 5	RES. METAL FIL RES. MRTAL FIL	M 4.3K 1% 1/5	5 W
D 5 8 D 5 9	1 S S 1 3 2 M T Z B . 2 J C	DIODE DIODE, ZENER	8.24 V	R 5 6 R 5 7	R D 1 4 B B 2 C 1 2 2 J R D 1 4 B B 2 C 1 0 1 J	RES. CARBON RES. CARBON	1.2K 5% 1/6	6₩
D 6 0 D 6 1	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 5 8 R 5 9	R D 1 4 B B 2 C 1 O 2 J R D 1 4 B B 2 C 1 O 2 J	RES. CARBON RES. CARBON	1K 5% 1/6	6₩
D 6 2 D 6 3	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 6 0 R 6 1	R D 1 4 B B 2 C 1 O 2 J R D 1 4 B B 2 C 1 O 2 J	RES. CARBON RES. CARBON	1K 5% 1/6	5 W
D 6 4 D 6 5	1 S S 1 3 2 1 S S 1 3 2	DIODE		R 6 2	R D 1 4 B B 2 C 1 2 2 J R D 1 4 B B 2 C 4 7 3 J	RES. CARBON	1 K 5% 1/6	8₩
D 2 0 1	S 1 V B 2 0	DIODE, BRIDGE		R 6 4	R 9 2 - 1 1 4 5 - 0 5	RES. CARBON RES. NETAL FIL		
D 2 0 2	S 1 V B 2 0	DIODE, BRIDGE		R 6 6	RD14DB3A101J R92-1132-05	RES. CARBON RES. METAL FIL	100 5% 16 1715 1% 1/5	
P 3 P 4	E 4 0 - 0 2 7 3 - 0 5 E 4 0 - 0 2 7 3 - 0 5	PIN CONNECTOR PIN CONNECTOR	2 P 2 P	R 6 7 R 6 8	R D 1 4 B B 2 C 1 0 4 J R 9 2 - 1 1 5 0 - 0 5	RES. CARBON RES. METAL FIL		
P 2 0 1	E40-0673-05			R 6 9 R 7 0	R 9 2 - 1 1 4 1 - 0 5 R 9 2 - 1 1 3 7 - 0 5	RES. METAL FIL RES. METAL FIL		
P 2 0 2 P 2 0 3	E 4 0 - 0 3 7 3 - 0 5 E 4 0 - 0 3 7 3 - 0 5	PIN CONNECTOR PIN CONNECTOR	6 P 3 P	R 7 1 R 7 2	R D 1 4 B B 2 C 4 7 1 J R 9 2 - 1 1 4 3 - 0 5	RES. CARBON RES. METAL FIL	470 5% 1/6	W
P 2 0 4 P 2 0 5	E40-0673-05	PIN CONNECTOR PIN CONNECTOR	3 P 6 P	R 7 3 R 7 4	R 9 2 - 1 0 6 1 - 0 5 R D 1 4 B B 2 C 1 0 4 J	JUNPING RES. RES. CARBON	ZERO OHN (5MM 100K 5% 1/6	1)
	E40-0273-05	PIN CONNECTOR	2 P	R 7 5 R 7 6	R D 1 4 B B 2 C 1 O 4 J R 9 2 - 1 1 5 0 - 0 5	RES. CARBON RES. NETAL FIL	100K 5% 1/6	W
Q 1 Q 2	2 S D 1 4 0 6 (Y) 2 S C 2 7 8 5 (F)	TR. SI, NPN TR. SI, NPN		R 7 7 R 7 8	R 9 2 - 1 1 4 1 - 0 5 R 9 2 - 1 1 3 7 - 0 5	RES. METAL FILE RES. METAL FILE	4.7K 1% 1/5	W
Q 3 Q 4	2 S C 2 7 8 5 (F) 2 S A 1 4 0 8 (O)	TR. SI, NPN TR. SI, PNP		R 7 9 R 8 0	R D I 4 B B 2 C 4 7 1 J R 9 2 - 1 1 4 3 - 0 5	RES. CARBON RES. METAL FILI	470 5% 1/6	W
Q 5 Q 6	2 S B 1 0 1 5 (Y) 2 S A 1 1 7 5 (F)	TR. SI, PNP TR. SI, PNP		R 8 1 R 8 2	R 9 2 - 1 0 6 1 - 0 5 R 9 2 - 1 1 4 2 - 0 5	JUMPING RES. RES. METAL FILM	ZERO OHN (5MM)
Q 7 Q 8	2 S A 1 1 7 5 (F) 2 S C 3 6 2 1 (0)	TR. SI, PNP TR. SI, NPN		R 8 3 R 8 4	R D 1 4 B B 2 C 1 O 4 J R 9 2 ~ 1 1 5 0 - 0 5	RES. CARBON RES. METAL FIL:	100K 5% 1/6	W
Q9 Q10	2 S C 3 0 6 4 (F) 2 S C 2 7 8 5 (F)	TR. SI, NPN TR. SI, NPN		R 8 5 R 8 6	R 9 2 - 1 1 3 6 - 0 5 R D 1 4 B B 2 C 1 0 1 J	RES. NETAL FILE RES. CARBON	82 1% 1/5	W
Q 1 1 Q 1 2	2 S C 2 7 8 5 (F) 2 S C 2 4 5 9 (G R)	TR. SI, NPN TR. SI, NPN		R 8 7	R 9 2 - 1 1 4 2 - 0 5 R 9 2 - 1 1 4 5 - 0 5	RES. METAL FILM		W
Q13 Q14	2 S C 3 6 2 1 (0) 2 S K 1 7 0 (BL)	TR. SI, NPN FET, N-CHANNEL		R 8 9 R 9 0	RD14BB2C333J	RES. METAL FILE	33 X 5 % 1/6	
Q15 Q16	2 S K 1 7 O (B L) 2 S K 1 7 O (B L)	FET, N-CHANNEL FET, N-CHANNEL		R 9 1	RD14BB2C333J NO USE	RES. CARBON	33K 5% 1/6	¥
Q 1 7	2 S K 1 7 O (BL)	FET, N-CHANNEL		R 9 2 R 9 3	R D 1 4 B B 2 C 1 5 3 J R D 1 4 B B 2 C 4 7 3 J	RES. CARBON RES. CARBON	15K 5% 1/6 47K 5% 1/6	
Q 2 0 Q 2 1	2 S K 1 7 O (B L)	FET, N-CHANNEL		R 9 4 R 9 5	R D 1 4 B B 2 C 4 7 3 J R D 1 4 B B 2 C 7 5 0 J	RES. CARBON RES. CARBON	47 X 5 X 1/6 75 5 X 1/6	¥
Q 2 2	2 S C 2 7 8 5 (F) 2 S C 3 6 2 1 (O)	TR. SI, NPN TR. SI, NPN		R 9 8	R 9 2 - 1 0 6 1 - 0 5	JUMPING RES.	ZERO OHN (5NN	
Q 2 3	25C3621(0)	TR. SI, NPN		R 9 9 R 1 0 0	NO USE RD14BB2C101J	RES. CARBON	100 5% 1/6	
R 1 R 2	RD14BB2C101J RD14BB2C101J	RES. CARBON RES. CARBON	100 5% 1/6W 100 5% 1/6W	R 1 0 1 R 1 0 2	R D 1 4 B B 2 C 1 O 1 J R D 1 4 D B 2 H 3 9 2 J	RES. CARBON RES. CARBON	100 5% 1/60 3.9K 5% 1/20	W
R 3 R 4	RD14DB3D471J R92-1161-05	RES. CARBON RES. CARBON	470 5% 2W 560 5% 1/4W	R 1 0 3 R 1 0 4	R D 1 4 B B 2 C 1 O 3 J R D 1 4 B B 2 C 1 5 3 J	RES. CARBON RES. CARBON	10K 5% 1/60 15K 5% 1/60	W
R 5 R 6	R D 1 4 D B 2 H 5 1 2 J R D 1 4 B B 2 C 1 O 2 J	RES. CARBON RES. CARBON	5.1K 5% 1/2W 1K 5% 1/6W	R 1 0 5 R 1 0 6	R D 1 4 B B 2 C 1 2 3 J R D 1 4 B B 2 C 3 3 2 J	RES. CARBON RES. CARBON	12K 5% 1/66 3.3K 5% 1/66	W
				,			/ 0 /	

REF. NO	PARTS NO	NAME & DESCRIPTION	
R 1 0 7	R D 1 4 B B 2 C 4 7 2 J	RES. CARBON 4.7% 5% 1/6W	
R 1 0 8	R 9 2 - 1 1 5 2 - 0 5	RES. METAL FILM 470K 1% 1/5W	
R 1 0 9	R D 1 4 B B 2 C 1 0 4 J	RES. CARBON 100K 5% 1/6W	
R 1 1 0	RD14BB2C222J	RES. CARBON 2.2K 5% 1/6W	
R 1 1 1	R92-1149-05	RES. METAL FILM 22K 1% 1/5W	
R 1 1 2	RD14BB2C682J	RES. CARBON 6.8K 5% 1/6W	
R 1 1 3	R92-1151-05	RES. METAL FILM 330K 1% 1/5W	
R114	RD14BB2C470J	RES. CARBON 47 5% 1/6W	
R115	RD14BB2C104J	RES. CARBON 100K 5% 1/6W	
R 1 1 6	R D 1 4 B B 2 C 4 7 2 J	RES. CARBON 4.7K 5% 1/6W	
R 1 1 7	R D 1 4 B B 2 C 2 2 4 J	RES. CARBON 220K 5% 1/6W	
R 1 1 8	R D 1 4 B B 2 C 1 O 3 J	RES. CARBON 10K 5% 1/6W	
R 1 1 9	R D 1 4 B B 2 C 1 2 2 J	RES. CARBON 1.2K 5% 1/6W	
R 1 2 0	R D 1 4 D B 3 D 4 7 2 J	RES. CARBON 4.7K 5% 2W	
R 1 2 1	R D 1 4 B B 2 C I O 4 J	RES. CARBON 100K 5% 1/6W	
R 1 2 2	R 9 2 - 1 0 7 6 - 0 5	RES. METAL GLAZE27M 5% 1/2W	
R 1 2 3	R D 1 4 B B 2 C 4 7 2 J	RES. CARBON 4.7K 5% 1/6W	
R 1 2 4	RD14BB2C105J	RES. CARBON 1M 5% 1/6W	
R 1 2 7	R D 1 4 B B 2 C 9 I 1 J	RES. CARBON 910 5% 1/6W	
R 1 2 8	R 9 2 - 1 1 3 3 - 0 5	RES. METAL FILM 5.6K 1% 1/5W	
R 1 2 9 R 1 3 0	R D 1 4 B B 2 C 4 7 2 J R D 1 4 B B 2 C 1 O 3 J	RES. CARBON 4.7K 5% 1/6W RES. CARBON 10K 5% 1/6W RES. METAL F1LM 22K 1% 1/5W	
R 1 3 1 R 1 3 2	R92-1149-05 RD14BB2C102J	RES. METAL FILM 22K 1% 1/5W RES. CARBON 1K 5% 1/6W RES. CARBON 1OK 5% 1/6W	
R 133 R 134 R 135	R D 1 4 B B 2 C 1 O 3 J R D 1 4 B B 2 C 1 O 3 J R D 1 4 B B 2 C 1 O 2 J	RES. CARBON 10K 5% 1/6W RES. CARBON 1K 5% 1/6W	
R136 R137	RD14BB2C472J RD14BB2C102J	RES. CARBON 4.7K 5% 1/6W RES. CARBON 1K 5% 1/6W	
R 138	RD14BB2C102J	RES. CARBON 1K 5% 1/6W	
R 139	RD14DB3A330J	RES. CARBON 33 5% 1W	
R 1 4 0	R D 1 4 D B 3 A 3 3 O J	RES. CARBON 33 5% 1W	
R 1 4 1	R D 1 4 D B 2 H 1 O 2 J	RES. CARBON 1K 5% 1/2W	
R 1 4 2 R 1 4 3	RD14DB2H102J NO USE	RES. CARBON 1K 5% 1/2₩	
R 1 4 4	R D 1 4 B B 2 C 1 O 3 J	RES. CARBON 10K 5% 1/6W	
U 1	N J M O 7 2 B D	IC, JFET INPUT OP AMP	
U 2	N J M 7 8 1 5 A	IC, VOLTAGE REGULATOR	
U 3 U 4	N J M O 7 2 B D O P O 7 D P	IC, JFET INPUT OP AMP IC, OPERATIONAL AMPRIFIER	
U 5 U 6	O P O 7 D P U P C 4 5 5 8 C	IC,OPERATIONAL AMPRIFIER IC,OP AMP IC,JFET INPUT OP AMP	
U 7 U 1 0	N J N O 7 2 B D N J N 7 8 1 5 A	IC, VOLTAGE REGULATOR	
U 1 1 U 1 2	UPC7915H-1 UPC4558C	IC,3-TERMINAL REGULATOR IC,OP AMP	
U 1 3	N J N 0 7 2 B D	IC, JFET INPUT OP AMP	
U 1 4	H A 1 7 5 5 5 P S	IC, TIMER	
U 15	TLP521-1(A)	IC,PHOTO COUPLER	
U 2 O 1	L M 7 9 L 0 5 A C Z	I C , R E G U L A T O R	
U 2 O 2	L M 7 9 L 0 5 A C Z	I C , R E G U L A T O R	
V R 1 V R 2	R 1 2 - 15 3 2 - 0 5	RES. SEMI FIXED 2KB RES. SEMI FIXED 50KB	
V R 3 V R 4	R 1 2 - 4 5 1 1 - 0 5 R 1 2 - 2 5 1 8 - 0 5 R 1 2 - 4 5 1 1 - 0 5	RES. SENI FIXED 5KB RES. SENI FIXED 50KB	
VR5	R 1 2 - 3 5 5 5 - 0 5	RES. SEMI FIXED 10K	
VR6	R 1 2 - 3 5 5 6 - 0 5	RES. SEMI FIXED 20K	
VR7	R 1 2 - 1 5 3 1 - 0 5	RES. SEMI FIXED 3KB	
VR8	R 1 2 - 4 5 1 1 - 0 5	RES. SEMI FIXED 50KB	
V R 9	R 1 2 - 1 5 3 1 - 0 5	RES. SEMI FIXED 3KB	
V R 1 O	R 1 2 - 4 5 1 1 - 0 5	RES. SEMI FIXED 50KB	
V R 1 1	R 1 2 - 45 1 1 - 0 5	RES. SEMI FIXED 50KB	
V R 2 O	R 1 2 - 3 5 2 2 - 0 5	RES. SENI FIXED 10KB	

PD35-10 AMP UNIT

	(X	73-1670-01)	
C 1 C 2 C 3 C 4 C 5 C 6 C 7 C 8 C 9 C 1 0 C 1 2 C 1 3 C 1 4 C 1 5 C 1 6 C 1 7 C 1 8 C 1 9 C 2 0 C 2 1 C 2 2 C 2 3 C 2 4	PARTS NO E 23 - 00 47 - 04 F 01 - 08 46 - 05 F 01 - 08 56 - 14 J 25 - 50 99 - 22 N 09 - 06 23 - 04 C 59 2 V 1 H 47 3 J C 59 2 V 2 V 1 H 47 3 J C 59 0 99 2 4 - 05 C 60 4 E W 1 E 1 0 0 N C 60 4 E W 1 E 1 0 0 N C 60 4 E W 1 E 1 0 0 N C 60 4 E W 1 E 1 0 0 N C 60 4 E W 1 E 1 0 0 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 4 E W 1 E 1 0 1 N C 60 5 E W 1 E 1 0 1 N C 60 5 E W 1 E 1 0 1 N C 7 5 E W 1 E 1 0 1 N C 9 2 P 2 A 4 7 1 N O U S E C 9 2 P 2 A 3 3 2 J N 0 U S E C 9 2 V 1 H 3 3 2 J	NAME & DESCRIPTION TERMINAL HEAT SINK, EXTRUDED HEAT SINK PCB (UNNOUNTED) SCREW, SEMS PAN HD M3X8 CAP. POLYESTER 0.047 5% CAP. POLYESTER 0.047 5% CAP. ELECTRO 330 20% CAP. ELECTRO 10 20% CAP. ELECTRO 10 20% CAP. ELECTRO 10 20% CAP. ELECTRO 470 20% CAP. ELECTRO 470 20% CAP. ELECTRO 10 20% CAP. ELECTRO 1009 CAP. ELECTRO 1 20% CAP. CERANIC 100P 5% CAP. CERANIC 100P 5% CAP. ELECTRO 1 20% CAP. ELECTRO 1 5% CAP. ELECTRO 1 5% CAP. HYLAR 3300P 5% CAP. POLYESTER 3300P 5%	5 0 0 V V 5 5 0 V V 5 5 0 V V 2 5 5 V V 2 5 5 V V V 2 5 5 V V V 5 5 0 V V V V V V V V V V V V
C 2 8	CC45CH1H101J	CAP. CERANIC 100P 5%	5 0 V
C 2 9 C 3 0 C 3 1 C 3 2 C 3 3 C 3 4 C 3 5 C 3 6 C 3 7 C 3 8 C 3 9 C 4 1 C 4 2 C 4 2 C 4 4 C 4 5	NO USE CC45CH1H101J CF92Y1H103J CC45CH1H101J CF92Y1H103J CF92Y1H103J CF92Y1H103J CF92Y1H103J CF92Y1H473J CF92Y1H473J CF92Y1H473J CF92Y1H473J CF92Y1H473J CF92Y1H473J CF92Y1H473J CF92Y1H473J CF92Y1H473J CC45CH1H101J CC45CH1H101J CC45CH1H101J	CAP. CERAMIC 100P 5% CAP. POLYESTER 0.01 5% CAP. POLYESTER 0.047 5% CAP. CERAMIC 100P 5% CAP. CERAMIC 100P 5% CAP. POLYESTER 4700P 5% CAP. POLYESTER 4700P 5%	5 0 V V V 5 0 V V V 5 0 V V V 5 0 V V V 5 0 V V V 5 0 V V V 5 0 V V V 5 0 V V V 5 0 V V 5 0 V V 5 0 V V 5 0 V V 5 0 V V V V
C50 C51 C52 C53 C54 C55 C55 C57 C58 C60 C61 C63 C64 C63 C66 C67 C66 C66 C66 C66 C66 C66 C66 C66	CF92V1H473J CF92V1H473J CS90-0924-05 CF92V1H103J CF92V1H103J CE04EW1E100M CS90-0924-05 CF92V1H103J CF92V1H103J CE04EW1E100M CF92V1H103J CC45CH1H470J CS91-0595-05 CC45CH1H101J CF92V1H103J	CAP. POLYESTER 0.047 5% CAP. POLYESTER 0.047 5% CAP. ELECTRO 330 20% CAP. POLYESTER 0.01 5% CAP. POLYESTER 0.01 5% CAP. ELECTRO 10 20% CAP. ELECTRO 10 20% CAP. POLYESTER 0.01 5% CAP. POLYESTER 0.01 5% CAP. POLYESTER 0.01 5% CAP. POLYESTER 0.01 5% CAP. CAP. ELECTRO 10 20% CAP. POLYESTER 0.01 5% CAP. CERAMIC 47P 5% CAP. CERAMIC 0.033 2% CAP. CERAMIC 100P 5% CAP. POLYESTER 1000P 5%	50 V V V 50 V V
C 7 2 C 7 3 C 7 4 C 7 5 C 7 6	CF92V1H103J CF92V1H224J CC45CH1H101J CE04EW1E100M CE04EW1C471M	CAP. POLYESTER 0.01 5% CAP. POLYESTER 0.22 5% CAP. CERAMIC 100P 5% CAP. ELECTRO 10 20% CAP. ELECTRO 470 20%	5 0 V 5 0 V 5 0 V 2 5 V 1 6 V
D 1 D 2 D 3 D 4 D 5 D 6 D 7 D 8 D 9 D 1 0 D 1 1 D 1 2 D 1 3 D 1 4 D 1 5 D 6 T 7 D 1 0 D 1 1 D 1 0 D 1 1 D 1 0 D 1 1 D 1 0 D 1 1 D 1 0 D 1	S 1 V B 2 0 S 1 V B 2 0 D S A 1 A 2 D S A 1 A 2 NO USE R D 1 3 F (B 2) M T 7.9 . 1 J C 1 S S 1 3 2 R D 1 3 F (B 2) M T 7.9 . 1 J C 1 S S 1 3 2 M T 7.4 . 7 J A 1 S S 1 3 2 I Z T 7 A 3 I Z T 7 A 3 I S S 1 3 2 1 S S 1 3 2 1 S S 1 3 2	DIODE, BRIDGE DIODE, BRIDGE DIODE DIODE DIODE, ZENER 12.97 V DIODE, ZENER 9.07 V DIODE DIODE, ZENER 12.97 V DIODE DIODE, ZENER 9.07 V DIODE DIODE, ZENER 4.56 V DIODE DIODE, ZENER 6.75 V DIODE DIODE, ZENER 6.75 V DIODE DIODE	

REF.NO		NAME & DESCRIPTION	REF. NO	PARTS NO	NAME & DESCR	IPTION
D 2 0	1 S S 1 3 2 1 S S 1 3 2	DIODE	R 3 2	R92-1150-05	RES. METAL FILM	100K 1% 1/5W
D 2 1	1 5 5 1 3 2	DIODE	R 3 3 R 3 4	R 9 2 - 1 1 3 8 - 0 5 R D 1 4 B B 2 C 1 5 1 J	RES. METAL FILM RES. CARBON	360 1% 1/5W 150 5% 1/6W
D 2 2	155132	DIODE	R 3 5	R 92 - 1 1 4 6 - 0 5	RES. METAL FILM	
D 2 3 D 2 4	1 S S 1 3 2 1 S S 1 3 2	DIODE	R 3 6	RN14BE2E5601D	RES. METAL FILM	5.6K 0.5% 1/4W
D 2 5	155132	DIODE	R 3 7 R 3 8	R D 1 4 B B 2 C 1 O 2 J R 9 2 - 1 1 5 0 - 0 5	RES. CARBON	1K 5% 1/6W
D 2 6	188132	DIODE	R 3 9	R92-1130-05	RES. METAL FILM RES. METAL FILM	
D 2 7 D 2 8	188132 NTZ5.1JB	DIODE ZENER E 074	R 4 0	R D 1 4 B B 2 C 2 2 1 J	RES. CARBON	220 5% 1/6W
D 2 9	188132	DIODE, ZENER 5.07V DIODE	R 4 1	R 9 2 - 1 1 4 7 - 0 5	RES. METAL FILM	
D 3 0	MTZ5.1JB	DIODE, ZENER 5.07 V	R 4 2 R 4 3	R N 1 4 B E 2 H 1 0 0 2 D K W R N 1 4 B E 2 H 1 8 0 2 D K W		10K 0.5% 1/2W 18K 0.5% 1/2W
D 3 1	DSA1A2	DIODE	R 4 4	RN14BE2H1802DKW	RES. METAL FILM	18K 0.5% 1/2W
D 3 2	D S A 1 A 2	DIODE	R 4 5	R N 1 4 B E 2 H 1 0 0 2 D K W	RES. METAL FILM	10K 0.5% 1/2W
D 4 0	S 1 V B 2 0	DIODE, BRIDGE	R 4 6 R 4 7	R N 1 4 B E 2 H 3 7 4 0 D K W R D 1 4 B B 2 C 1 0 2 J	RES. METAL FILM RES. CARBON	
D 4 1	S 1 V B 2 0	DIODE, BRIDGE	R 4 8	RD14BB2C102J	RES. CARBON	IK 5% 1/6W IK 5% 1/6W
D 4 2 D 4 3	D S A 1 A 2 D S A 1 A 2	DIODE	R 4 9	R 9 2 - 1 1 3 5 - 0 5	RES. METAL FILM	
D 4 4	DSA1A2	D I O D E D I O D E	R 5 0	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON	1 K 5 % 1/6 W
D 4 5	D S A 1 A 2	DIODE	R 5 1 R 5 2	R D 1 4 B B 2 C 1 O 2 J R 9 2 - 1 1 3 4 - 0 5	RES. CARBON RES. METAL FILM	1K 5% 1/6W 1K 1% 1/5W
D 4 6	MTZ6,2JB	DIODE, ZENER 6.12 V	R 5 3	RD14BB2C162J	RES. CARBON	1.6K 5% 1/6W
D 4 7 D 4 8	1 S S 1 3 2 1 S S 1 3 2	DIODE DIODE	R 5 4	R 9 2 - 1 1 4 0 - 0 5	RES. METAL FILM	4.3K 1% 1/5W
D 4 9	188132	DIODE	R 5 5 R 5 6	R 9 2 - 1 1 3 1 - 0 5 R D 1 4 B B 2 C 1 2 2 J	RES. MRTAL FILM RES. CARBON	
D 5 0	155132	DIODE	R 5 7	RD14BB2C101J	RES. CARBON	1.2K 5% 1/6W 100 5% 1/6W
D 5 1 D 5 2	RD10F(B2) RD10F(B2)	DIODE, ZENER 9.75V DIODE, ZENER 9.75V	R 5 8	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON	1K 5% 1/6W
D 5 3	188132	DIODE, ZENER 9.75V DIODE	R 5 9 R 6 0	RD14BB2C102J	RES. CARBON	1K 5% 1/6W
D 5 4	1 5 5 1 3 2	DIODE	R 6 1	R D 1 4 B B 2 C 1 O 2 J R D 1 4 B B 2 C 1 O 2 J	RES. CARBON RES. CARBON	1K 5% 1/6W 1K 5% 1/6W
D 5 5	188132	DIODE	R 6 2	R D 1 4 B B 2 C 1 2 2 J	RES. CARBON	1.2K 5% 1/6W
D 5 6 D 5 7	1 S S 1 3 2 1 S S 1 3 2	DIODE DIODE	R 6 3	RD14BB2C473J	RES. CARBON	47K 5% 1/6W
D 5 8	188132	DIODE	R 6 4 R 6 5	R 9 2 - 1 1 4 5 - 0 5 R D 1 4 D B 3 A 1 0 1 J	RES. METAL FILM RES. CARBON	10K 1% 1/5W 100 5% 1W
D 5 9	MTZ8.2JC	DIODE, ZENER 8.24V	R 6 6	R92-1132-05	RES. METAL FILM	
D 6 0 D 6 1	1 S S 1 3 2 1 S S 1 3 2	DIODE DIODE	R 6 7	RD14BB2C104J	RES. CARBON	100K 5% 1/6W
D 6 2	155132	DIODE	R 6 8 R 6 9	R 9 2 - 1 1 5 0 - 0 5 R 9 2 - 1 1 4 1 - 0 5	RES. METAL FILM RES. METAL FILM	
D 6 3	1 5 5 1 3 2	DIODE		R 9 2 - 1 1 3 7 - 0 5	RES. METAL FILM	
D 6 4 D 6 5	1 S S 1 3 2 1 S S 1 3 2	DIODE DIODE	R 7 1	RD14BB2C471J	RES. CARBON	470 5% 1/6W
		J. 002	R 7 2 R 7 3	R 9 2 - 1 1 4 3 - 0 5 R 9 2 - 1 1 4 8 - 0 5	RES. METAL FILM RES. METAL FILM	
P 3	E40-0273-05	PIN CONNECTOR 2P	R 7 4	RD14BB2C104J	RES. CARBON	100K 5% 1/6W
P 4	E 4 0 - 0 2 7 3 - 0 5	PIN CONNECTOR 2P		RD14BB2C104J	RES. CARBON	100K 5% 1/6W
Qι	2 S D 1 4 O 6 (Y)	TR. SI, NPN		R 9 2 - 1 1 5 0 - 0 5 R 9 2 - 1 1 4 1 - 0 5	RES. METAL FILM RES. METAL FILM	
Q 2 Q 3	2SC2785(F)	TR. SI, NPN	R 7 8	R 9 2 - 1 1 3 7 - 0 5	RES. METAL FILM	
Q 4	2 S C 2 7 8 5 (F) 2 S A 1 4 0 8 (O)	TR. SI, NPN TR. SI, PNP		RD14BB2C471J	RES. CARBON	470 5% 1/6W
Q 5	2 S B 1 O 1 5 (Y)	TR. SI, PNP		R92-1143-05 R92-1148-05	RES. METAL FILM RES. METAL FILM	
Q 6	25 A 1 1 7 5 (F)	TR. SI, PNP		R92-1142-05	RES. METAL FILM	
Q 7 Q 8	2 S A 1 1 7 5 (F) 2 S C 3 6 2 1 (0)	TR. SI, PNP TR. SI, NPN		RD14BB2C104J	RES. CARBON	100K 5% 1/6W
Q 9	2SC3064(F)	TR. SI, NPN		R92-1150-05 R92-1136-05	RES. METAL FILM	
Q 1 0	2 S C 2 7 8 5 (F)	TR. SI, NPN		RD14BB2C101J	RES. METAL FILM RES. CARBON	82 1% 1/5W 100 5% 1/6W
Q 1 1 Q 1 2	2 S C 2 7 8 5 (F) 2 S C 2 4 5 9 (G R)	TR. SI, NPN TR. SI, NPN	R 8 7	R 9 2 - 1 1 4 2 - 0 5	RES. METAL FILM	5.1K 1% 1/5W
Q 1 3	2503621(0)	TR. SI, NPN		R 9 2 - 1 1 4 5 - 0 5 R D 1 4 B B 2 C 3 3 3 J	RES. METAL FILM	
Q 1 4	2 S K 1 7 O (BL)	FET, N-CHANNEL		RD14BB2C333J	RES. CARBON RES. CARBON	33K 5% 1/6W 33K 5% 1/6W
Q15 Q16	2 S K 1 7 O (B L) 2 S K 1 7 O (B L)	FET, N-CHANNEL FET, N-CHANNEL	R 9 1	NO USE		30a 0 m 1/0 m
Q 1 7	2 S K 1 7 O (B L)	FET, N-CHANNEL		RD14BB2C153J RD14BB2C473J	RES. CARBON	15K 5% 1/6W
			i	RD14BB2C473J	RES. CARBON RES. CARBON	47K 5% 1/6W 47K 5% 1/6W
Q 2 0 Q 2 1	2 S K 1 7 O (B L) 2 S C 2 7 8 5 (F)	FET, N-CHANNEL TR. SI, NPN	R 9 5	R D 1 4 B B 2 C 1 5 1 J	RES. CARBON	150 5% 1/6W
Q 2 2	25C3621(0)	TR. SI, NPN	R 9 8	R92-1061-05	JUMPING RES.	7500 OHN (588)
Q 2 3	2 S C 3 6 2 1 (0)	TR. SI, NPN	R 9 9	NO USE	JUNITED RES.	ZERO OHN (5NN)
Rı	R D 1 4 B B 2 C 1 O 1 J	RES. CARBON 100 5% 1/		RD14BB2C101J	RES. CARBON	100 5% 1/6W
R 2	R D 1 4 B B 2 C 1 O 1 J	RES. CARBON 100 5% 1/	100	RD14BB2C101J RD14DB2H392J	RES. CARBON RES. CARBON	100 5% 1/6W 3,9K 5% 1/2W
R 3 R 4	R D 1 4 D B 3 D 4 7 1 J R 9 2 - 1 1 6 1 - 0 5		R103	R D 1 4 B B 2 C 1 O 3 J	RES. CARBON	10K 5% 1/6W
R 5	RD14DB2H512J			RD14BB2C153J	RES. CARBON	15K 5% 1/6W
R 6	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON 1K 5% 1/		R D 1 4 B B 2 C 1 2 3 J R D 1 4 B B 2 C 3 3 2 J	RES. CARBON RES. CARBON	12K 5% 1/6W 3.3K 5% 1/6W
R 7 R 8	R D 1 4 D B 2 H 2 R 7 J R D 1 4 B B 2 C 1 5 3 J		2 W R107	RD14BB2C472J	RES. CARBON	
R 9	R92-1144-05			R92-1152-05	RES. NETAL FILM	470K 1% 1/5W
R 1 0	R 9 2 ~ 1 1 4 4 - 0 5	RES. MRTAL FILM 7.5K 1% 1/		R D 1 4 B B 2 C 1 0 4 J R D 1 4 B B 2 C 2 2 2 J	RES, CARBON RES, CARBON	100K 5% 1/6W 2.2K 5% 1/6W
R 1 1 R 1 2	R D 1 4 D B 3 D 4 7 1 J R 9 2 - 1 1 6 1 - 0 5		R111	R92-1149-05	RES. METAL FILM	
R 1 3	RD14DB2H512J				RES. CARBON	6.8K 5% 1/6W
R 1 4	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON 1K 5% 1/	6W R114	R92-1151-05 RD14BB2C470J	RES. METAL FILM RES. CARBON	330K 1% 1/5W 47 5% 1/6W
R 15 R 16	R D 1 4 D B 2 H 2 R 7 J R D 1 4 B B 2 C 1 5 3 J		2 W R115	RD14BB2C104J	RES. CARBON	100K 5% 1/6W
R 17	RD14BB2C682J				RES. CARBON	4.7K 5% 1/6W
R 18	R 9 2 ~ 1 1 3 8 - 0 5	RES. HETAL FILM 360 1% 1/	75W R118		RES. CARBON RES. CARBON	220K 5% 1/6W 10K 5% 1/6W
R 19 R 2 0	R 9 2 - 1 1 3 1 - 0 5 R 9 2 - 1 1 3 5 - 0 5		/5 W R119	R D 1 4 B B 2 C 1 2 2 J	RES. CARBON	1.2K 5% 1/6W
R 2 1	R92-1484-05				RES. CARBON	4.7% 5% 2W
			R 1 2 2		RES. CARBON RES. METAL GLAZI	100K 5% 1/6W E27H 5% 1/2W
R 2 4 R 2 5	R D I 4 B B 2 C 1 5 3 J R D I 4 B B 2 C 1 5 3 J		6 W R123	RD14BB2C472J	RES. CARBON	4.7K 5% 1/6W
R 2 6	R D 1 4 B B 2 C 2 4 3 J		6 W R 124	RD14BB2C105J	RES. CARBON	1 M 5 % 1/6 W
R 2 7	R D 1 4 B B 2 C 8 2 0 J	RES. CARBON 82 5% 1/	6 W R127	RD14BB2C911J	RES. CARBON	910 5% 1/6W
R 2 8 R 2 9	RD14BB2C182J RD14BB2C181J			R92-1133-05	RES. HETAL FILM	5.6K 1% 1/5W
R 3 0	RN14BE2E5101D	RES. HETAL FILM 5.1K 0.5% 1/	4 W R130		RES. CARBON RES. CARBON	4.7K 5% 1/6W 10K 5% 1/6W
R 3 1	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON 1K 5% 1/			RES. METAL FILM	
			1			

REF. NO	PARTS NO	NAME & DESCRIPTION	REF. NO PARTS NO	NAME & DESCRIPTION
R 1 3 2 R 1 3 3	R D 1 4 B B 2 C 1 O 2 J R D 1 4 B B 2 C 1 O 3 J	RES. CARBON 1K 5% 1/6W RES. CARBON 10K 5% 1/6W	C50 CF92V1H473J C51 CF92V1H473J	CAP. POLYESTER 0.047 5% 50V CAP. POLYESTER 0.047 5% 50V
R 1 3 4	RD14BB2C103J	RES. CARBON 10K 5% 1/6W RES. CARBON 1K 5% 1/6W	C52 C90-0924-05	CAP. ELECTRO 330 20% 50V
R 135 R 136	R D 1 4 B B 2 C 1 O 2 J R D 1 4 B B 2 C 4 7 2 J	RES. CARBON 4.7K 5% 1/6W	C53 CF92V1H103J C54 CF92V1H103J	CAP. POLYESTER 0.01 5% 50V
R 137 R 138	R D 1 4 B B 2 C 1 O 2 J R D 1 4 B B 2 C 1 O 2 J	RES. CARBON 1K 5% 1/6W RES. CARBON 1K 5% 1/6W	C55 CE04EW1E100M C56 C90-0924-05	CAP. ELECTRO 10 20% 25V CAP. ELECTRO 330 20% 50V
R 139	R D 1 4 D B 3 A 3 3 O J	RES. CARBON 33 5% 1W	C57 CF92V1H103J	CAP. POLYESTER 0.01 5% 50V CAP. POLYESTER 0.01 5% 50V
R 1 4 0 R 1 4 1	R D 1 4 D B 3 A 3 3 O J R D 1 4 D B 2 H 1 O 2 J	RES. CARBON 1K 5% 1/2W	C59 CE04EW1E100M	CAP. ELECTRO 10 20% 25V
R 1 4 2 R 1 4 3	RD14DB2H102J NO USE	RES. CARBON 1K 5% 1/2W	C60 CF92V1H103J C61 CC45CH1H470J	CAP. POLYESTER 0.01 5% 50V CAP. CERANIC 47P 5% 50V
R 1 4 4	R D 1 4 B B 2 C 1 O 3 J	RES. CARBON 10K 5% 1/6W	C62 C91-0595-05 C63 CC45CH1H101J	CAP. PLASTIC 0.033 2% 100 V CAP. CERAMIC 100P 5% 50 V
0.1	N J N O 7 2 B D	IC, JFET INPUT OP AMP	C64 CF92V1H102J	CAP. POLYESTER 1000P 5% 50V
U 2 U 3	N J M 7 8 1 5 A N J M 0 7 2 B D	IC, VOLTAGE REGULATOR IC, JFET INPUT OP AMP	C65 CF92V1H103J C66 CF92V1H472J	CAP. POLYESTER 4700P 5% 50V
U 4 U 5	0 P 0 7 D P 0 P 0 7 D P	IC, OPERATIONAL AMPRIFIER IC, OPERATIONAL AMPRIFIER	C67 CE04EW1E100M	CAP. ELECTRO 10 20% 25V CAP. POLYESTER 0.01 5% 50V
U 6	UPC4558C	IC, OP AMP IC, JFET INPUT OP AMP	C69 CF92V1H473J C70 CE04AW1E100M	CAP. POLYESTER 0.047 5% 50V CAP. ELECTRO 10 20% 25V
U 7	N J N 0 7 2 B D		C71 CE04AW1E100H	CAP. ELECTRO 10 20% 25V
U 1 0 U 1 1	N J N 7 8 1 5 A U P C 7 9 1 5 H - 1	IC, VOLTAGE REGULATOR IC, 3-TERMINAL REGULATOR	C72 CF92V1H103J C73 CF92V1H224J	CAP. POLYESTER 0.22 5% 50V
U 1 2 U 1 3	U P C 4 5 5 8 C N J N 0 7 2 B D	IC,OP AMP IC,JFET INPUT OP AMP	C74 CC45CH1H101J	
U 1 4 U 1 5	HA17555PS TLP521-1(A)	IC, TIMER IC, PHOTO COUPLER	C76 CE04EW1C4711	CAP. ELECTRO 470 20% 16V
		• • •	C201 CE04EW1E471)	
V R 1 V R 2	R 1 2 - 1 5 3 2 - 0 5 R 1 2 - 4 5 1 1 - 0 5	RES. SEMI FIXED 2KB RES. SEMI FIXED 50KB	C202 CE04EW1E470) C203 CE04EW1E471)	CAP. ELECTRO 470 20% 25V
V R 3 V R 4	R 1 2 - 2 5 1 8 - 0 5 R 1 2 - 4 5 1 1 - 0 5	RES. SEMI FIXED 5KB RES. SEMI FIXED 50KB	C204 CE04EW1E470) C205 CF92V1H473J	CAP. ELECTRO 47 20% 25V CAP. POLYESTER 0.0475% 50V
VR5	R 1 2 - 3 5 2 2 - 0 5	RES. SEM1 FIXED 10 KB RES. SEM1 FIXED 20 KB	C206 CF92V1H103J	CAP. POLYESTER 0.01 5% 50V CAP. POLYESTER 0.047 5% 50V
V R 6 V R 7	R 1 2 - 3 5 2 3 - 0 5 R 1 2 - 2 5 1 3 - 0 5	RES. SENI FIXED 5KB	C207 CF92V1H473J C208 CF92V1H103J	CAP. POLYESTER 0.01 5% 50V
V R 8 V R 9	R 1 2 - 4 5 0 8 - 0 5 R 1 2 - 2 5 1 3 - 0 5	RES. SEMI FIXED 50KB RES. SEMI FIXED 5KB	C209 CF92V1H473J C210 CF92V1H103J	CAP. POLYESTER 0.047 5% 50V CAP. POLYESTER 0.01 5% 50V
V R 1 O V R 1 1	R 1 2 - 4 5 0 8 - 0 5 R 1 2 - 4 5 0 8 - 0 5	RES. SEMI FIXED 50KB RES. SEMI FIXED 50KB	C211 CF92V1H473J C212 CF92V1H103J	CAP. POLYESTER 0.047 5% 50V CAP. POLYESTER 0.01 5% 50V
		RES, SEMI FIXED 10KB	D1 S1VB20	DIODE, BRIDGE
V R 2 0	R 1 2 - 3 5 2 2 - 0 5	als, sent trade to a	D2 S1VB20	DIODE, BRIDGE
			D3 DSA1A2 D4 DSA1A2	DIODE DIODE
	PD35-	10D AMP UNIT	D5 NO USE D6 RD13F(B2)	DIODE, ZENER 12.97V
		73-1680-01)	D7 HTZ9.1JC D8 1SS132	DIODE, ZENER 9.07 V DIODE
	<u>·</u>	NAME & DESCRIPTION	D9 RD13F(B2)	DIODE, ZENER 12.97 V
REF. N	E 23-0047-04	TERMINAL	D10 NTZ9.1JC D11 1SS132	DIODE
	F 0 1 - 0 8 4 6 - 0 5 F 0 1 - 0 8 5 6 - 1 4	HEAT SINK, EXTRUDED HEAT SINK	D12 MTZ4.7JA D13 1SS132	DIODE, ZENER 4.56 V DIODE
	J 25 - 5099 - 22 N 09 - 0623 - 04	PCB (UNMOUNTED) SCREW,SENS PAN HD M3X8	D14 HZT7A3 D15 HZT7A3	DIODE, ZENER 6.75 V DIODE, ZENER 6.75 V
C 1	CF92V1H473J	CAP. POLYESTER 0.047 5% 50V CAP. POLYESTER 0.047 5% 50V	D16 1SS132	DIODE
C 2 C 3	C F 9 2 V 1 H 4 7 3 J C 9 0 - 0 9 2 4 - 0 5	CAP, ELECTRO 330 20% 50V	D17 1SS132 D18 1SS132	DIODE DIODE
C 4 C 5	CE04EW1E100M CE04DW1E221M	CAP. ELECTRO 10 20% 25V CAP. ELECTRO 220 20% 25V	D19 1SS132 D20 1SS132	D
C 6 C 7	C90-0939-05 CE04EW1E100X	CAP. ELECTRO 470 20% 35V CAP. ELECTRO 10 20% 25V	D21 1SS132 D22 1SS132	DIODE DIODE
C 8	CE04EW1E100M	CAP. ELECTRO 10 20% 25V	D23 1SS132	DIODE
C 9 C 1 0	CE04DW1E221N C90-0924-05	CAP. ELECTRO 330 20% 50V	D24 1SS132 D25 1SS132	DIODE
C 1 1 C 1 2	CE04EW1E101N CE04EW1HR33N	CAP. ELECTRO 100 20% 25V CAP. ELECTRO 0.33 20% 50V	D26 1SS132 D27 1SS132	D I O D E D I O D E
C 1 3	CE04EW1H4R7N CE04EW1E100M	CAP. ELECTRO 4.7 20% 50V CAP. ELECTRO 10 20% 25V	D28 MTZ5.1JB D29 1SS132	DIODE, ZENER 5.07 V DIODE
C 1 5	CE04AW1H010M	CAP. ELECTRO 1 20% 50V CAP. CERANIC 100P 5% 50V	D30 MTZ5.1JB D31 DSA1A2	DIODE, ZENER 5.07 V DIODE
C 1 6 C 1 7	C C 4 5 C H 1 H 1 O 1 J C E 0 4 A W 1 H O 1 O N	CAP. ELECTRO 1 20% 50V	D32 DSA1A2	DIODE
C 1 8 C 1 9	C C 4 5 C H 1 H 1 O 1 J C E 0 4 A W 1 H O 1 O N	CAP. CERANIC 100P 5% 50V CAP. ELECTRO 1 20% 50V	D40 S1VB20	DIODE, BRIDGE
C 2 0 C 2 1	CQ92P2A471J NO USE	CAP. NYLAR 470P 5% 100	D42 DSA1A2	DIODE, BRIDGE DIODE
C 2 2	CQ92P2A332J	CAP. NYLAR 3300P 5% 100		DIODE DIODE
C 2 3 C 2 4		CAP. POLYESTER 3300P 5% 50V	D45 DSA1A2	DIODE
C 2 8		CAP. CERAMIC 100P 5% 50V	D46 NTZ6.2JB D47 1SS132	DIODE
C 2 9 C 3 0		CAP. CERANIC 100P 5% 50V	D48 1SS132 D49 1SS132	DIODE .
C 3 1 C 3 2	CF92V1H103J	CAP. POLYESTER 0.01 5% 50V CAP. CERANIC 100P 5% 50V	D50 1SS132 D51 RD10F(B2)	DIODE DIODE, ZENER 9.75 V
C 3 3	CF92V1H103J	CAP. POLYESTER 0.01 5% 50 V CAP. POLYESTER 0.01 5% 50 V	D52 RD10F(B2) D53 1SS132	DIODE, ZENER 9.75 V DIODE
C34 C35	CF92V1H103J	CAP. POLYESTER 0.01 5% 50V	D54 1SS132	DIODE
C36 C37		CAP. POLYESTER 0.047 5% 50V CAP. POLYESTER 0.01 5% 50V	D 5 5 1 S S 1 3 2 D 5 6 1 S S 1 3 2	DIODE DIODE
C38		CAP. POLYESTER 0.047 5% 50% CAP. POLYESTER 0.047 5% 50%	D57 1SS132 D58 1SS132	D
C 4 0 C 4 1	CF92V1H473J	CAP. POLYESTER 0.047 5% 50% CAP. POLYESTER 0.047 5% 50%	D59 MTZ8.2JC D60 1SS132	DIODE, ZENER 8.24V DIODE
C 4 2		CAP. CERANIC 100P 5% 501	D61 1SS132 D62 1SS132	DIODE
F 4 2		CID CEDINIC 100D EV EN		
C 4 3 C 4 4	CC45CH1H101J CF92V1H472J	CAP. CERANIC 100P 5% 50V CAP. POLYESTER 4700P 5% 50V	D63 1SS132	DIODE DIODE
	CC45CH1H101J CF92V1H472J			

REF. NO D64 D65	PARTS NO 155132 155132	NAME & DESCRIPTI DIODE DIODE	N	R E F . N O R 6 2 R 6 3	PARTS NO RD14BB2C122J RD14BB2C473J	NAME & DESCRIPTION RES. CARBON 1.2K 5% 1/6W RES. CARBON 47K 5% 1/6W
D 2 0 1 D 2 0 2	S 1 V B 2 O S 1 V B 2 O	DIODE, BRIDGE DIODE, BRIDGE		R 6 4 R 6 5 R 6 6	R 9 2 - 1 1 4 5 - 0 5 R D 1 4 D B 3 A 1 0 1 J R 9 2 - 1 1 3 2 - 0 5	RES. METAL FILM 10K 1% 1/5W RES. CARBON 100 5% 1W RES. METAL FILM 715 1% 1/5W
P 3 P 4	E 4 0 - 0 2 7 3 - 0 5 E 4 0 - 0 2 7 3 - 0 5	PIN CONNECTOR 2P PIN CONNECTOR 2P		R 6 7 R 6 8 R 6 9	R D 1 4 B B 2 C 1 0 4 J R 9 2 - 1 1 5 0 - 0 5 R 9 2 - 1 1 4 1 - 0 5	RES. CARBON 100K 5% 1/6W RES. METAL FILM 100K 1% 1/5W RES. METAL FILM 4.7K 1% 1/5W
P 2 0 1 P 2 0 2	E 4 0 - 0 6 7 3 - 0 5 E 4 0 - 0 3 7 3 - 0 5	PIN CONNECTOR 6P PIN CONNECTOR 3P		R 7 0 R 7 1 R 7 2	R 9 2 - 1 1 3 7 - 0 5 R D 1 4 B B 2 C 4 7 1 J R 9 2 - 1 1 4 3 - 0 5	RES. METAL FILM 150 1% 1/5W RES. CARBON 470 5% 1/6W RES. METAL FILM 6.8K 1% 1/5W
P 2 0 3 P 2 0 4 P 2 0 5	E 4 0 - 0 3 7 3 - 0 5 E 4 0 - 0 6 7 3 - 0 5 E 4 0 - 0 2 7 3 - 0 5	PIN CONNECTOR 3P PIN CONNECTOR 6P PIN CONNECTOR 2P		R 7 3 R 7 4 R 7 5	R 9 2 - 1 0 6 1 - 0 5 R D 1 4 B B 2 C 1 0 4 J	JUMPING RES. ZERO OHM (5MM) RES. CARBON 100K 5% 1/6W
Q 1 Q 2	2SD1406(Y) 2SC2785(F)	TR. SI, NPN TR. SI, NPN		R 7 6 R 7 7	R D 1 4 B B 2 C 1 0 4 J R 9 2 - 1 1 5 0 - 0 5 R 9 2 - 1 1 4 1 - 0 5	RES. CARBON 100K 5% 1/6W RES. METAL FILM 100K 1% 1/5W RES. METAL FILM 4.7K 1% 1/5W
Q 3 Q 4	2 S C 2 7 8 5 (F) 2 S A 1 4 0 8 (O)	TR. SI, NPN TR. SI, PNP		R 7 8 R 7 9 R 8 0	R 9 2 - 1 1 3 7 - 0 5 R D 1 4 B B 2 C 4 7 1 J R 9 2 - 1 1 4 3 - 0 5	RES. METAL FILM 150 1% 1/5W RES. CARBON 470 5% 1/6W RES. METAL FILM 6.8K 1% 1/5W
Q 5 Q 6 Q 7	2 S B 1 0 1 5 (Y) 2 S A 1 1 7 5 (F) 2 S A 1 1 7 5 (F)	TR. SI, PNP TR. SI, PNP TR. SI, PNP		R 8 1 R 8 2 R 8 3	R 9 2 - 1 0 6 1 - 0 5 R 9 2 - 1 1 4 2 - 0 5 R D 1 4 B B 2 C 1 0 4 J	JUMPING RES. ZERO OHM (5MM) RES. METAL FILM 5.1K 1% 1/5W RES. CARBON 100K 5% 1/6W
Q8 Q9 Q10	2SC3621(0) 2SC3064(F) 2SC2785(F)	TR. SI, NPN TR. SI, NPN TR. SI, NPN		R 8 4 R 8 5 R 8 6	R 9 2 - 1 1 5 0 - 0 5 R 9 2 - 1 1 3 6 - 0 5 R D 1 4 B B 2 C 1 0 1 J	RES. METAL FILM 100K 1% 1/5W RES. METAL FILM 82 1% 1/5W RES. CARBON 100 5% 1/6W
Q 1 1 Q 1 2 Q 1 3	2 S C 2 7 8 5 (F) 2 S C 2 4 5 9 (G R) 2 S C 3 6 2 1 (0)	TR. SI, NPN TR. SI, NPN TR. SI, NPN		R 8 7 R 8 8 R 8 9	R 9 2 - 1 1 4 2 - 0 5 R 9 2 - 1 1 4 5 - 0 5 R D 1 4 B B 2 C 3 3 3 J	RES. METAL FILM 5.1K 1% 1/5W RES. METAL FILM 10K 1% 1/5W
Q 1 4 Q 1 5	2 S K 1 7 O (B L) 2 S K 1 7 O (B L)	FET, N-CHANNEL FET, N-CHANNEL		R 9 0 R 9 1	RD14BB2C333J NO USE	RES. CARBON 33K 5K 1/6W RES. CARBON 33K 5K 1/6W
Q 1 6 Q 1 7	2 S K 1 7 O (B L) 2 S K 1 7 O (B L)	FET, N-CHANNEL FET, N-CHANNEL		R 9 2 R 9 3 R 9 4	R D 1 4 B B 2 C 1 5 3 J R D 1 4 B B 2 C 4 7 3 J R D 1 4 B B 2 C 4 7 3 J	RES. CARBON 15K 5% 1/6W RES. CARBON 47K 5% 1/6W RES. CARBON 47K 5% 1/6W
Q 2 0 Q 2 1 Q 2 2	2 S K 1 7 O (B L) 2 S C 2 7 8 5 (F) 2 S C 3 6 2 1 (O)	FET, N-CHANNEL TR. SI, NPN TR. SI, NPN		R 9 5 R 9 8	RD14BB2C151J R92-1061-05	RES. CARBON 150 5% 1/6W JUMPING RES. ZERO OHM (5MM)
Q 2 3 R 1	2 S C 3 6 2 1 (0) R D 1 4 B B 2 C 1 0 1 J	TR. SI, NPN RES. CARBON 100	5% 1/6W	R 9 9 R 1 0 0 R 1 0 1	NO USE RD14BB2C101J RD14BB2C101J	RES. CARBON 100 5% 1/6W
R 2 R 3	R D 1 4 B B 2 C 1 O 1 J R D 1 4 D B 3 D 4 7 1 J	RES. CARBON 100 RES. CARBON 470	5% 1/6W 5% 2W	R 1 0 2 R 1 0 3	R D 1 4 D B 2 H 3 9 2 J R D 1 4 B B 2 C 1 0 3 J	RES. CARBON 3.9K 5% 1/2W RES. CARBON 10K 5% 1/6W
R 4 R 5 R 6	R 9 2 - 1 1 6 1 - 0 5 R D 1 4 D B 2 H 5 1 2 J R D 1 4 B B 2 C 1 0 2 J	RES. CARBON 560 RES. CARBON 5.1 RES. CARBON 1K	5% 1/6W	R 1 0 4 R 1 0 5 R 1 0 6	R D 1 4 B B 2 C 1 5 3 J R D 1 4 B B 2 C 1 2 3 J R D 1 4 B B 2 C 3 3 2 J	RES. CARBON 15K 5% 1/6W RES. CARBON 12K 5% 1/6W RES. CARBON 3.3K 5% 1/6W
R 7 R 8 R 9	R D 1 4 D B 2 H 2 R 7 J R D 1 4 B B 2 C 1 5 3 J R 9 2 - 1 1 4 4 - 0 5	RES. CARBON 2.7 RES. CARBON 15K RES. MRTAL FILM 7.5	5% 1/2W 5% 1/6W K 1% 1/5W	R 1 0 7 R 1 0 8 R 1 0 9	R D 1 4 B B 2 C 4 7 2 J R 9 2 - 1 1 5 2 - 0 5 R D 1 4 B B 2 C 1 0 4 J	RES. CARBON 4.7K 5% 1/6W RES. METAL FILM 470K 1% 1/5W RES. CARBON 100K 5% 1/6W
R 1 0 R 1 1 R 1 2	R 9 2 - 1 1 4 4 - 0 5 R D 1 4 D B 3 D 4 7 1 J R 9 2 - 1 1 6 1 - 0 5	RES. MRTAL FILM 7.5 RES. CARBON 470 RES. CARBON 560	X 1% 1/5W 5% 2W 5% 1/4W	R 1 1 0 R 1 1 1 R 1 1 2	R D 1 4 B B 2 C 2 2 2 J R 9 2 - 1 1 4 9 - 0 5 R D 1 4 B B 2 C 6 8 2 J	RES. CARBON 2.2K 5% 1/6W RES. METAL FILM 22K 1% 1/5W
R 1 3 R 1 4	R D 1 4 D B 2 H 5 1 2 J R D 1 4 B B 2 C 1 0 2 J	RES. CARBON 5.1 RES. CARBON 1K	K 5% 1/2W 5% 1/6W	R 1 1 3 R 1 1 4	R 9 2 - 1 1 5 1 - 0 5 R D 1 4 B B 2 C 4 7 0 J	RES. CARBON 6.8K 5% 1/6W RES. NETAL FILM 330K 1% 1/5W RES. CARBON 47 5% 1/6W
R 1 5 R 1 6 R 1 7	R D 1 4 D B 2 H 2 R 7 J R D 1 4 B B 2 C 1 5 3 J R D 1 4 B B 2 C 6 8 2 J	RES. CARBON 2.7 RES. CARBON 15K RES. CARBON 6.8	K 5% 1/6W	R 1 1 5 R 1 1 6 R 1 1 7	R D 1 4 B B 2 C 1 0 4 J R D 1 4 B B 2 C 4 7 2 J R D 1 4 B B 2 C 2 2 4 J	RES. CARBON 100K 5% 1/6W RES. CARBON 4.7K 5% 1/6W RES. CARBON 220K 5% 1/6W
R 1 8 R 1 9 R 2 0	R 9 2 - 1 1 3 8 - 0 5 R 9 2 - 1 1 3 1 - 0 5 R 9 2 - 1 1 3 5 - 0 5	RES. METAL FILM 360 RES. MRTAL FILM 430 RES. METAL FILM 2.7	1% 1/5W 1% 1/5W K 1% 1/5W	R 1 1 8 R 1 1 9 R 1 2 0	R D 1 4 B B 2 C 1 O 3 J R D 1 4 B B 2 C 1 2 2 J R D 1 4 D B 3 D 4 7 2 J	RES. CARBON 10% 5% 1/6W RES. CARBON 1.2% 5% 1/6W RES. CARBON 4.7% 5% 2W
R 2 1	R92-1484-05 RD14BB2C153J	RES. FIXED 3.3 RES. CARBON 15K		R 1 2 1 R 1 2 2 R 1 2 3	R D 1 4 B B 2 C 1 0 4 J R 9 2 - 1 0 7 6 - 0 5	RES. CARBON 100K 5% 1/6W RES. METAL GLAZE27N 5% 1/2W
R 2 5 R 2 6	R D 1 4 B B 2 C 1 5 3 J R D 1 4 B B 2 C 2 4 3 J	RES. CARBON 15K RES. CARBON 24K	5% 1/6W 5% 1/6W	R 1 2 4	RD14BB2C472J RD14BB2C105J	RES. CARBON 4.7K 5% 1/6W RES. CARBON 1M 5% 1/6W
R 2 7 R 2 8 R 2 9	R D 1 4 B B 2 C 8 2 0 J R D 1 4 B B 2 C 1 8 2 J R D 1 4 B B 2 C 1 8 1 J	RES. CARBON 180	% 5% 1/6W 5% 1/6W	R 1 2 7 R 1 2 8 R 1 2 9	R D 1 4 B B 2 C 9 1 1 J R 9 2 - 1 1 3 3 - 0 5 R D 1 4 B B 2 C 4 7 2 J	RES. CARBON 910 5% 1/6W RES. METAL FILM 5.6K 1% 1/5W RES. CARBON 4.7K 5% 1/6W
R 3 0 R 3 1 R 3 2	R N 1 4 B E 2 E 5 1 0 1 D R D 1 4 B B 2 C 1 0 2 J R 9 2 - 1 1 5 0 - 0 5	RES. METAL FILM 5.1 RES. CARBON 1K RES. METAL FILM 100	5% 1/6W	R 130 R 131 R 132	R D 1 4 B B 2 C 1 0 3 J R 9 2 - 1 1 4 9 - 0 5 R D 1 4 B B 2 C 1 0 2 J	RES. CARBON 10K 5% 1/6W RES. METAL FILM 22K 1% 1/5W RES. CARBON 1K 5% 1/6W
R 3 3 R 3 4 R 3 5	R 9 2 - 1 1 3 8 - 0 5 R D 1 4 B B 2 C 1 5 1 J R 9 2 - 1 1 4 6 - 0 5	RES. METAL FILM 360 RES. CARBON 150 RES. METAL FILM 11X	1% 1/5W 5% 1/6W	R 1 3 3 R 1 3 4 R 1 3 5	R D 1 4 B B 2 C 1 O 3 J R D 1 4 B B 2 C 1 O 3 J	RES. CARBON 10K 5% 1/6W RES. CARBON 10K 5% 1/6W
R 3 6 R 3 7	R N 1 4 B E 2 E 5 6 0 1 D R D 1 4 B B 2 C 1 0 2 J	RES. METAL FILM 5.6 RES. CARBON 1K	X 0.5% 1/4W 5% 1/6W	R 136 R 137	RD14BB2C102J RD14BB2C472J RD14BB2C102J	RES. CARBON 1K 5% 1/6W RES. CARBON 4.7K 5% 1/6W RES. CARBON 1K 5% 1/6W
R 3 8 R 3 9 R 4 0	R 9 2 - 1 1 5 0 - 0 5 R 9 2 - 1 1 3 8 - 0 5 R D 1 4 B B 2 C 2 2 1 J	RES. METAL FILM 100 RES. METAL FILM 360 RES. CARBON 220	1% 1/5W 5% 1/6W	R 138 R 139 R 140	R D 1 4 B B 2 C 1 O 2 J R D 1 4 D B 3 A 3 3 O J R D 1 4 D B 3 A 3 3 O J	RES. CARBON 1K 5% 1/6W RES. CARBON 33 5% 1W RES. CARBON 33 5% 1W
R 4 1 R 4 2 R 4 3		RES. METAL FILM 16. RES. METAL FILM 108 RES. METAL FILM 188	0.5% 1/2W	R 1 4 1 R 1 4 2 R 1 4 3	RD14DB2H102J RD14DB2H102J NO USE	RES. CARBON 1 K 5% 1/2 W RES. CARBON 1 K 5% 1/2 W
R 4 4 R 4 5 R 4 6	RN14BE2H1802DKW RN14BE2H1002DKW	PRES. NETAL FILM 18K RES. NETAL FILM 10K RES. NETAL FILM 374	0.5% 1/2W 0.5% 1/2W	R 1 4 4 U 1	RD14BB2C103J NJN072BD	RES. CARBON 10K 5% 1/6W IC, JFET INPUT OP AMP
R 4 7 R 4 8	R D 1 4 B B 2 C 1 O 2 J R D 1 4 B B 2 C 1 O 2 J	RES. CARBON 1K RES. CARBON 1K	5% 1/6W 5% 1/6W	U 2 U 3	N J H 7 8 1 5 A N J H 0 7 2 B D	IC, VOLTAGE REGULATOR IC, JFET INPUT OP AMP
R 4 9 R 5 0 R 5 1	R 9 2 - 1 1 3 5 - 0 5 R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J	RES. HETAL FILM 2.7 RES. CARBON 1K RES. CARBON 1K	5% 1/6W 5% 1/6W	U 4 U 5 U 6	0P07DP 0P07DP UPC4558C	IC, OPERATIONAL AMPRIFIER IC, OPERATIONAL AMPRIFIER IC, OP AMP
R 5 2 R 5 3 R 5 4	R 9 2 - 1 1 3 4 - 0 5 R D 1 4 B B 2 C 1 6 2 J R 9 2 - 1 1 4 0 - 0 5	RES. METAL FILM 1K RES. CARBON 1.6 RES. METAL FILM 4.3		U 7 U 1 0	NJN072BD NJH7815A	IC, JFET INPUT OP AMP IC, VOLTAGE REGULATOR
R 5 5 R 5 6	R 9 2 - 1 1 3 1 - 0 5 R D 1 4 B B 2 C 1 2 2 J	RES. HRTAL FILM 430 RES. CARBON 1.2 RES. CARBON 100	1% 1/5W % 5% 1/6W	U 1 1 U 1 2 U 1 3	UPC7915H-1 UPC4558C NJH072BD	IC,3-TERNINAL REGULATOR IC,OP AMP
R 5 7 R 5 8 R 5 9	RD14BB2C101J RD14BB2C102J RD14BB2C102J	RES. CARBON 1K RES. CARBON 1K	5% 1/6W 5% 1/6W	U 1 4 U 1 5	HA17555PS TLP521-1(A)	IC, JFET INPUT OP AMP IC, TIMER IC, PHOTO COUPLER
R 6 0 R 6 1	R D 1 4 B B 2 C 1 0 2 J R D 1 4 B B 2 C 1 0 2 J	RES. CARBON 1K RES. CARBON 1K	5% 1/6W 5% 1/6W			•

	PARTS NO LM79L05ACZ LM79L05ACZ	NAME & DESCRIPTION IC, REGULATOR IC, REGULATOR
V R 5	R 1 2 - 1 5 3 2 - 0 5 R 1 2 - 4 5 1 1 - 0 5 R 1 2 - 2 5 1 8 - 0 5 R 1 2 - 2 5 1 1 - 0 5 R 1 2 - 3 5 5 5 - 0 5	RES. SEMI FIXED 2 KB RES. SEMI FIXED 50 KB RES. SEMI FIXED 5 KB RES. SEMI FIXED 50 KB RES. SEMI FIXED 10 KB
V R 6 V R 7 V R 8 V R 9 V R 1 0 V R 1 1	R 1 2 - 3 5 5 6 - 0 5 R 1 2 - 1 5 3 1 - 0 5 R 1 2 - 4 5 1 1 - 0 5 R 1 2 - 4 5 1 1 - 0 5 R 1 2 - 4 5 1 1 - 0 5	RES. SEMI FIXED 3KB RES. SEMI FIXED 50KB RES. SEMI FIXED 3KB
	R 1 2 - 3 5 2 2 - 0 5	RES. SEMI FIXED 10KB

PD18-10D DPM UNIT

		6-1260-05)	
REF. NO C1 C2 C3 C4 C5 C6	PARTS NO J25-5119-02 CE04CW1A470M CE04CW1A100M CF92V1H224J CF92V1H473J CF92V1H104J CH93BD2A101J CF92V1H223J	NAME & DESCRIPTION PCB (UNHOUNTED) CAP. ELECTRO 47 20% 10 CAP. ELECTRO 10 20% 10 CAP. POLYESTER 0.22 5% 50 CAP. POLYESTER 0.047 5% 50 CAP. POLYESTER 0.1 5% 50	0 V 0 V 0 V 0 V
C 3 1 C 3 2 C 3 3 C 3 4 C 3 5 C 3 6 C 3 7	CE04CW1A470M CE04CW1A100M CF92V1H224J CF92V1H473J CF92V1H404J CM93BD2A101J CF92V1H223J	CAP. ELECTRO 10 20% 10 CAP. POLYESTER 0.22 5% 50 CAP. POLYESTER 0.047 5% 50 CAP. POLYESTER 0.1 5% 50 CAP. MICA 100P 5% 10	0 V 0 V 0 V 0 V 0 O V
D 1 D 2 D 3 D 4 D 5	G L - 9 D O 3 D G L - 9 D O 3 D G L - 9 D O 3 D G L - 9 D O 3 D L T - 9 O O 2 D	LED LED LED LED LED	
D 3 1 D 3 2 D 3 3 D 3 4 D 3 5	G L - 9 D O 3 D G L - 9 D O 3 D G L - 9 D O 3 D G L - 9 D O 3 D L T - 9 O O 2 D	LED LED LED LED LED	
P 3 P 4	E 3 1 - 2 5 1 3 - 1 5 E 3 1 - 2 5 1 2 - 1 5	WIRE ASS'Y; I WIRE ASS'Y; V	
P 2 0 4	E 3 1 - 2 5 2 0 - 1 5	WIRE ASS'Y	
R 1 R 2 R 3 R 4 R 5 R 6 R 7	R N 1 4 B K 2 C 4 7 0 3 F R N 1 4 B K 2 C 1 1 0 3 F R D 1 4 B B 2 C 1 8 2 J R N 1 4 B E 2 E 1 5 0 2 F R N 1 4 B E 2 E 1 0 0 2 F R D 1 4 B B 2 C 1 6 1 J R D 1 4 B B 2 C 3 9 1 J	RES. METAL FILM 110K 1% 1/ RES. CARBON 1.8K 5% 1/ RES. METAL FILM 15K 1% 1/ RES. METAL FILM 10K 1% 1/ RES. CARBON 160 5% 1/	6 W 6 W 4 W 4 W 6 W
R 18 R 19	RD14BB2C104J NO USE	RES. CARBON 100K 5% 1/	6₩
R 2 0	R N 14 B C 2 E 1 5 O 2 F		4 1
R 2 5 R 2 6	R N 14 B C 2 E 1 8 0 2 F R D 14 B B 2 C 1 6 1 J		4 W
R 3 1 R 3 2 R 3 3 R 3 4 R 3 5 R 3 6 R 3 7	R N 1 4 B K 2 C 4 7 0 3 F R N 1 4 B K 2 C 1 1 0 3 F R D 1 4 B B 2 C 1 8 2 J R N 1 4 B E 2 E 1 5 0 2 F R D 1 4 B B 2 C 1 6 1 J R D 1 4 B B 2 C 3 9 1 J	RES. METAL FILM 110K 1% 1/ RES. CARBON 1.8K 5% 1/ RES. METAL FILM 15K 1% 1/ RES. METAL FILM 10K 1% 1/ RES. CARBON 160 5% 1/	6 W 6 W 6 W 4 W 4 W 6 W
R 4 8 R 4 9	RD14BB2C104J NO USE	RES. CARBON 100K 5% 1/	/-6 W
R 5 0	R N 1 4 B C 2 E 6 2 0 1 F		/ 4 W
R 5 5 R 5 6	R N 1 4 B C 2 E 1 8 0 2 F R D 1 4 B B 2 C 1 6 1 J		/ 4 W / 6 W
U 1 U 2	T S C 7 1 0 7 C P L - A L M 3 3 6 Z - 2 . 5	<pre>1C,OPERATIONAL AMPLIFIER 1C,REFERENCE DIODE</pre>	

IC, OPERATIONAL AMPLIFIER IC, REFERENCE DIODE

RES. SEMI FIXED 10K RES. SEMI FIXED 500

REF. NO	PARTS NO	NAME &	DESCR	IPTION
	R 1 2 - 3 5 4 6 - 0 5 R 1 2 - 0 5 6 8 - 0 5	RES. SEMI RES. SEMI		

PD35-10D DPM UNIT

	(X7	6-1260-06)
REF. NO C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11	PARTS NO J25-5119-02 CE04CW1A470M CF04CW1A470M CF92V1H224J CF92V1H473J CF92V1H473J CF92V1H104J CM93BD2A101J CF92V1H223J C91-1205-05 NO USE CE04CW1V2R2M C91-0591-05	NAME & DESCRIPTION PCB (UNMOUNTED) CAP. ELECTRO 47 20% 10 V CAP. ELECTRO 10 20% 10 V CAP. POLYESTER 0.22 5% 50 V CAP. POLYESTER 0.1 25% 50 V CAP. ELECTRO 0.022 50 V CAP. ELECTRO 2.2 20% 35 V CAP. ELECTRO 0.22
C 3 1 C 3 2 C 3 3 C 3 4 C 3 5 C 3 6 C 3 7	CE04CW1A470M CE04CW1A100M CF92V1H224J CF92V1H473J CF92V1H473J CF92V1H104J CF92V1H204J	CAP. ELECTRO 47 20% 10V CAP. ELECTRO 10 20% 10V CAP. POLYESTER 0.22 5% 50V CAP. POLYESTER 0.047 5% 50V CAP. POLYESTER 0.1 5% 50V CAP. HICA 100P 5% 100W CAP. POLYESTER 0.022 5% 50V
D 1 D 2 D 3 D 4 D 5 D 6 D 7 D 8 D 9	G L - 9 D 0 3 D G L - 9 D 0 3 D G L - 9 D 0 3 D G L - 9 D 0 3 D L T - 9 D 0 2 D I S S I 3 2 I S I 5 4 4 Å I S S S I 3 2	LED LED LED LED LED DIODE DIODE DIODE DIODE
D 3 1 D 3 2 D 3 3 D 3 4 D 3 5	G L - 9 D O 3 D G L - 9 D O 3 D G L - 9 D O 3 D G L - 9 D O 3 D L T - 9 O O 2 D	LED LED LED LED LED
Q 1 Q 2 Q 3 Q 4	DTC144EF DTC144EF DTA124EF 2SK117(GR)	TR. SI, NPN TR. SI, NPN TR. SI, PNP FET, N-CHANNEL
R 1 R 2 R 3 R 4 R 5 R 6	R N 1 4 B K 2 C 4 7 0 3 F R N 1 4 B K 2 C 1 1 0 3 F R D 1 4 B B 2 C 1 8 2 J R N 1 4 B E 2 E 1 5 0 2 F R N 1 4 B E 2 E 1 0 0 2 F R D 1 4 B B 2 C 1 6 1 J	RES. METAL FILM 470K 1% 1/6W RES. METAL FILM 110K 1% 1/6W RES. CARBON 1.8K 5% 1/6W RES. METAL FILM 15K 1% 1/4W RES. METAL FILM 10K 1% 1/4W RES. CARBON 160 5% 1/6W
R 9 0 1 1 1 1 1 1 1 1 2 1 3 1 1 3 1 1 4 1 1 5 1 5 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1	R D 1 4 B B 2 C 1 2 3 J R D 1 4 B B 2 C 3 3 3 3 J R D 1 4 B B 2 C 1 0 4 J R D 1 4 B B 2 C 1 0 0 4 J R D 1 4 B B 2 C 1 0 0 3 J R D 2 - 1 0 6 1 - 0 5 R D 1 4 B B 2 C 3 0 1 J R D 1 4 B B 2 C 3 0 0 1 J R D 1 4 B B 2 C 3 0 0 1 J R D 1 4 B B 2 C 1 0 0 3 J R D 1 4 B B 2 C 1 0 0 4 J R D 1 4 B B 2 C 1 0 0 1 F R N 1 4 B C 2 E 1 6 0 1 F R N 1 4 B K 2 C 1 3 0 0 1 F R N 1 4 B K 2 C 1 3 0 0 1 F R N 1 4 B K 2 C 2 2 0 0 1 F R N 1 4 B K 2 C 2 2 0 1 F R N 1 4 B K 2 C 2 2 0 1 F R N 1 4 B K 2 C 3 0 0 1 F R N 1 4 B K 2 C 3 0 0 1 F R N 1 4 B K 2 C 3 0 6 4 J R D 1 4 B B 2 C 1 6 1 J R D 2 C 3 6 4 J R D 2 C 3 6 4 J R D 2 C 3 6 4 J R D 2 C 3 6 4 J R D 2 C 3 6 4 J R D 2 C 3 6 4 J R D 3 C 3 6 4 J R D 3 C 3 6 4 J R D 4 C 4 C 5 C 5 C 6 C 5 C R D 1 4 B B 2 C 1 6 1 J R D 2 C 3 6 4 J R D 3 C 3 6 4 J R D 3 C 3 6 4 J R D 4 C 4 C 5 C 5 C 6 C 5 C 6 C 5 C R D 1 4 B 2 C 1 6 1 J R D 1 4 B 2 C 1 6 1 J R D 2 C 3 6 4 J R D 3 C 3 6 4 J R D 3 C 3 6 C 5 C 6 C 6 C 6 C 6 C 6 C 6 C 6 C 6 C	RES. CARBON 33K 5% 1/6W RES. CARBON 100K 5% 1/6W RES. CARBON 300 5% 1/6W RES. CARBON 300 5% 1/6W RES. CARBON 100K 5% 1/6W RES. CARBON 100K 5% 1/6W RES. CARBON 100K 5% 1/6W RES. METAL FILM 1.6K 1% 1/4W RES. METAL FILM 220K 1% 1/6W RES. METAL FILM 1.5K 1% 1/6W RES. METAL FILM 1.5K 1% 1/6W RES. METAL FILM 1.5K 1% 1/6W RES. METAL FILM 1.2 K 1% 1/6W RES. METAL FILM 1.2 K 1% 1/6W RES. METAL FILM 1.3K 1% 1/6W RES. CARBON 360K 5% 1/6W RES. CARBON 360K 5% 1/6W RES. CARBON 360K 5% 1/6W RES. METAL FILM 12K 1% 1/5W RES. METAL FILM 17.5K 1% 1/5W
R 3 0 R 3 1 R 3 2 R 3 3 R 3 4 R 3 5 R 3 6 R 3 7	NO USE RN14BK2C4703F RN14BK2C1103F RD14BB2C182J RN14BE2E1502F RN14BE2E1002F RD14BB2C161J RD14BB2C381J	RES. METAL FILM 470K 1% 1/6W RES. NETAL FILM 110K 1% 1/6W RES. CARBON 1.8K 5% 1/6W RES. NETAL FILM 15K 1% 1/4W RES. METAL FILM 10K 1% 1/4W RES. CARBON 160 5% 1/6W RES. CARBON 390 5% 1/6W
R 4 8 R 4 9	RD14BB2C104J NO USE	RES. CARBON 100K 5% 1/6%
R 5 0	RN14BC2E6201F	RES. METAL FILM 6.2K 1% 1/4W
R 5 5 R 5 6	R N 1 4 B C 2 E 1 8 0 2 F R D 1 4 B B 2 C 1 6 1 J	RES. METAL FILM 18K 1% 1/45 RES. CARBON 160 5% 1/65

U31 TSC7107CPL-A U32 LM336Z-2.5

NAME & DESCRIPTION IC, OPERATIONAL AMPLIFIER IC, REFERENCE DIODE IC, QUAD COMPARATOR IC, QUAD 2-INPUT NAND GATE REF. NO PARTS NO U1 TSC7107CPL-A U2 LM336Z-2.5 U3 LM339N U4 HC14011BCP U 3 1 T S C 7 1 0 7 C P L - A U 3 2 L M 3 3 6 Z - 2 . 5 IC, OPERATIONAL AMPLIFIER IC, REFERENCE DIODE

RES. SEMI FIXED 10K RES. SEMI FIXED 500 RES. SEMI FIXED 500

RES. SEMI FIXED 10K RES. SEMI FIXED 500

V R I R 1 2 - 3 5 4 6 - 0 5 V R 2 R 1 2 - 0 5 6 8 - 0 5 V R 3 R 1 2 - 0 5 6 8 - 0 5

V R 3 1 R 1 2 - 3 5 4 6 - 0 5 V R 3 2 R 1 2 - 0 5 6 8 - 0 5

	PD18-10/PD18-10D OVP UNIT
	(X77-1400-00)
C 1 C 2 C 3 C 4 C 5 C 6	PARTS NO NAME & DESCRIPTION J19-1641-14 HOLDER FOR LED J25-5158-33 PCB (UNNOUNTED) CF92V1H103J CAP. POLYESTER 0.01 5% 50V CE04EW1C101M CAP. ELECTRO 100 20% 16V CK45B1H102K CAP. CERAMIC 1000P 10% 50V CF92V1H103J CAP. POLYESTER 0.01 5% 50V CE04EW1C101M CAP. ELECTRO 100 20% 16V CE04EW1H470M CAP. ELECTRO 47 20% 50V
D 1 D 2 D 3 D 4 D 5 D 6 D 7 D 8 D 9 D 1 0 D 1 1 D 1 2 D 1 3 D 1 4 D 1 5 D 1 6 D 1 7	DSA1A2 D10DE DSA1A2 D10DE DSA1A2 D10DE DSA1A2 D10DE SA1A2 D10DE RD6.2E(83) D10DE, ZENER 6.34V ISS132 D10DE
P 5 P 6 P 7 P 8 P 9 P 1 0 P 1 1 P 1 2	E40-0273-05 PIN CONNECTOR 2P E40-1373-05 PIN CONNECTOR 13P E40-0273-05 PIN CONNECTOR 2P E40-0273-05 PIN CONNECTOR 3P E40-0273-05 PIN CONNECTOR 2P E40-0273-05 PIN CONNECTOR 2P E40-0273-05 PIN CONNECTOR 2P E40-0273-05 PIN CONNECTOR 2P E40-0273-05 PIN CONNECTOR 2P
P302 P303 P304 P305	E40-0273-05 PIN CONNECTOR 2P NO USE E40-0273-05 PIN CONNECTOR 2P E40-0273-05 PIN CONNECTOR 2P
Q 1 Q 2 Q 3 Q 4 Q 5	2SC3621(0) TR. SI, NPN 2SA1175(F) TR. SI, PNP 2SC2785(F) TR. SI, NPN 2SC2785(F) TR. SI, NPN 2SA1175(F) TR. SI, PNP
R 1 R 2 R 3 R 5 R 6 R 8 R 10 R 11 R 12 R 13 R 14 R 15 R 16 R 17 R 18 R 19 R 12 R 12 R 12 R 13 R 14 R 15 R 16 R 17 R 18 R 19 R 10 R 10 R 10 R 10 R 10 R 10 R 10 R 10	RD14DB3A102J

5% 1/69 HM (10HM) 5% 1/69
H M (1 0 M M)
1 1/61
1/6
1/41

PD36-10/PD36-10D OVP UNIT (V77 1400 01)

(X77-1400-01)					
EF. NO C1 C2 C3 C4 C5 C6	PARTS NO NAME & DESCRIPTION J19-1641-14 HOLDER FOR LED J25-5158-33 PCB (UNMOUNTED) CF92V1H103J CAP. POLYESTER 0.01 5% 50V CK45B1H102K CAP. ELECTRO 1000 20% 16V CK45B1H102K CAP. CERAMIC 1000P 10% 50V CF92V1H103J CAP. POLYESTER 0.01 5% 50V CE04EW1C101M CAP. ELECTRO 100 20% 16V CE04EW1C101M CAP. ELECTRO 100 20% 16V CE04EW1C101M CAP. ELECTRO 47 20% 50V				
DI D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D14 D15	DSA1A2 DIODE DSA1A2 DIODE DSA1A2 DIODE DSA1A2 DIODE SA1A2 DIODE RD6.2E(B3) DIODE, ZENER 6.34V ISS132 DIODE LSS132 DIODE LSS132 DIODE SSA1A2 DIODE LSS132 DIODE SA1A2 DIODE SSA1A2 DIODE LSS132 DIODE ISS132 DIODE ISS132 DIODE ISS132 DIODE ISS132 DIODE LSS132 DIODE LSS132 DIODE LSS132 DIODE				
P 5 P 6 P 7 P 8 P 9 P 1 0 P 1 1 P 1 2	E 4 0 - 0 2 7 3 - 0 5 PIN CONNECTOR 2 P E 4 0 - 1 3 7 3 - 0 5 PIN CONNECTOR 13 P E 4 0 - 0 2 7 3 - 0 5 PIN CONNECTOR 2 P E 4 0 - 0 2 7 3 - 0 5 PIN CONNECTOR 3 P E 4 0 - 0 2 7 3 - 0 5 PIN CONNECTOR 2 P E 4 0 - 0 2 7 3 - 0 5 PIN CONNECTOR 2 P E 4 0 - 0 2 7 3 - 0 5 PIN CONNECTOR 2 P E 4 0 - 0 2 7 3 - 0 5 PIN CONNECTOR 2 P E 4 0 - 0 2 7 3 - 0 5 PIN CONNECTOR 2 P E 4 0 - 0 2 7 3 - 0 5 PIN CONNECTOR 2 P				
P302 P303 P304	E40-0273-05 PIN CONNECTOR 2P NO USE E40-0273-05 PIN CONNECTOR 2P				
P305 Q1 Q2 Q3 Q4 Q5	E40-0273-05 PIN CONNECTOR 2P 2SC3621(0) TR. SI, NPN 2SA1175(F) TR. SI, PNP 2SC2785(F) TR. SI, NPN 2SA1175(F) TR. SI, NPN 2SA1175(F) TR. SI, PNP				
R R R R R R R R R R R R R R R R R R R	RD14DB3A102J RES. CARBON 1K 5% 1W RD14DB3A102J RES. CARBON 1K 5% 1W RES. RES. CARBON 1K 5% 1W RES. RES. METAL FILM 3.83K0.5% 1/2 RN14BC2E220OF RES. METAL FILM 24K 0.5% 1/2 RN14BC2E120OF RES. METAL FILM 220 1% 1/4 RN14BC2E120OF RES. METAL FILM 200 1% 1/4 RN14BC2E120OF RES. METAL FILM 750 1% 1/4 RN14BC2E1750OF RES. METAL FILM 750 1% 1/2 RD14BB2C392J RES. CARBON 1K 5% 1/6 RD14BB2C392J RES. CARBON 3.9K 5% 1/6 RD14BB2C272J RES. CARBON 470 5% 1/6 RD14BB2C272J RES. CARBON 2.7K 5% 1/6 RD14BB2C272J RES. CARBON 2.7K 5% 1/6 RD14BB2C272J RES. CARBON 470 5% 1/6 RD14BB2C272J RES. CARBON 470 5% 1/6 RD14BB2C102J RES. CARBON 1K 5% 1/6 RD14BB2C362J RES. CARBON 22 K 5% 1/6 RD14BB2C362J RES. CARBON 10 C 5% 1/6 RD14DB2H02J RES. CARBON 10 C 5% 1/6 RD14D				

REF. NO PARTS NO R27 RD14BB2C512J R28 RD14BB2C361J NAME & DESCRIPTION RES. CARBON 5.1K 5% 1/6W RES. CARBON 360 5% 1/6W R31 R92-0150-05 R32 RD14BB2C183J R33 RD14BB2C272J R34 RD14BB2E162J ZERO OHM (10 MM) 18 K 5 % 1/6 W 2.7 K 5 % 1/6 W 1.6 K 5 % 1/4 W JUMPING RES. RES. CARBON RES. CARBON RES. CARBON R D 1 4 B B 2 C 1 8 3 J R D 1 4 B B 2 C 2 7 2 J R D 1 4 B B 2 E 1 6 2 J PUSH SWITCH PUSH SWITCH PUSH SWITCH S40-1519-05 S 4 0 - 1 5 1 8 - 0 5 S 4 0 - 1 5 1 8 - 0 5

N J M 3 1 1 D U P C 4 5 5 8 C IC, COMPARATOR VR1 R12-1542-05 RES. SENI FIXED 2.5K

PD18-10/PD18-10D PD35-10/PD35-10D RECTIFIER UNIT (X81-1590-00)

REF. NO	PARTS NO	NAME & DESCR PCB (UNNOUNTED)	IPTION
	J25-5100-03	PCB (UNNOUNTED)	
C 7	CF93AN2E154K	CAP. POLYESTER	0.15 10% 250
C 8	CF93AN2E154K	CAP. POLYESTER CAP. POLYESTER	0.15 10% 250
C 9	CF93AN2E154K	CAP. POLYESTER	0.15 10% 250
D 3	CTM-32R	DIODE	
D 4	NO USE		
D 5	CTM-32R	DIODE	
D 6	CTM-32R	DIODE	
D16	DSA1A2	DIODE	
Ji	E23-0555-05	G. TERNINAL	
J 2	E23-0555-05	G. TERMINAL	
J 3	E23-0555-05	G. TERMINAL	
J 4	E23-0555-05	G. TERNINAL	
J 5	E 2 3 - 0 5 5 5 - 0 5	G. TERNINAL	
J 6	E 2 3 - 0 5 5 5 - 0 5	G. TERMINAL	
J 7	E 2 3 - 0 5 5 5 - 0 5	G. TERMINAL	
J 8	E 2 3 - 0 5 5 5 - 0 5	G. TERNINAL	
J 9	E 2 3 - 0 5 5 6 - 0 5	G. TERNINAL	
P 2 1	F40-0373-05	PIN CONNECTOR	3 P
P 2 2	E40-0273-05	PIN CONNECTOR	2 P
P 2 3		PIN CONNECTOR	
1 2 3	E40-0073-00	THE CONNECTOR	.
Q 1	2 S C 3 2 8 0 (R)	TR. SI. NPN	
Q 2	NO USE		
Q 3	2 S C 3 2 8 0 (R)	TR. SI, NPN	
Q 4	NO USE		
Q 5		TR. SI, NPN	
•	2000200()		
R 1	R92-1160-05	RES. FIXED	0.15 5% 3W
R 2	NO USE		
R 3		RES. FIXED	0.15 5% 3W
R 4	NO USE	- · · · · · · · · · · · · · · · · · · ·	
R 5	R92-1160-05	RES. FIXED	0.15 5% 3W
R 6	NO USE		
R 7	R D 1 4 D B 2 H 1 O 1 J	RES. CARBON	100 5% 1/29
R 1 1	R D 1 4 D B 3 A 3 3 0 J	RES. CARBON	33 5% 1W
R 1 2	R D 1 4 D B 3 A 3 3 0 J	RES. CARBON	33 5% 1W
R 1 3	R D 1 4 D B 3 A 3 3 0 J	RES. CARBON	33 5% 1W

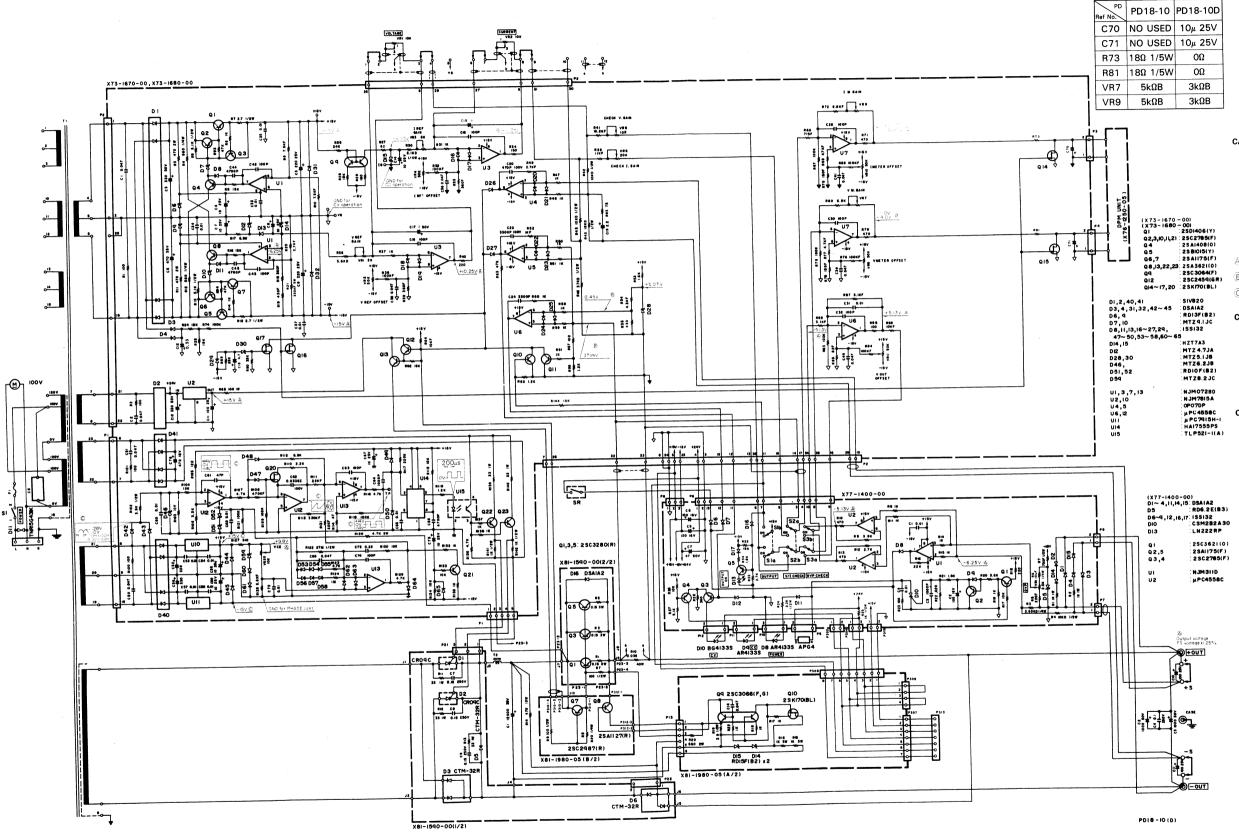
PARTS LIST

	PD18-10/P	D18-10D	C.I UNIT
	(X	31-1980-05	
REF. NO	PARTS NO-	NAME & DE	SCRIPTION
	J 25 - 5157 - 03		
C 1 4	CF92V1H473J	CAP. POLYEST	ER 0.047 5% 50
D 1 4	RD15F(B2)	DIODE ZENER	
	RD15F(B2)	DIODE ZENER	
P 1 3	E 4 0 - 0 6 7 3 - 0 5	PIN CONNECTO	R 6 P
P307	E40-0773-05	PIN CONNECTO	R 7 P
P308		PIN CONNECTO	
P309	E40-0473-05	PIN CONNECTO	R 4P
P310	E40-0473-05	PIN CONNECTO	R 4P
P311	NO USE E40-0373-05		
P 3 1 2	E 4 0 - 0 3 7 3 - 0 5	PIN CONNECTO	R 3 P
Q 7	2 S C 2 9 8 7 (R)	TR. SI, NPN	
Q 8	2 S A 1 2 2 7 (Q) 2 S C 3 0 6 6 (F, G)	TR. SI. PNP	
Q 9	2 S C 3 0 6 6 (F , G)	TR. SI. NPN	
Q 1 0	2 S K 1 7 0 (B L)	FET, N-CHANN	EL
R 8	RD14BB2E821J	RES. CARBON	820 5% 1/4
R 9	R D 1 4 D B 2 H 1 O 1 J	RES. CARBON	100 5% 1/2
R 1 5	RD14DB3F102J	RES. CARBON	1 K 5 % 3 W
R 16	RD14DB3F102J	RES. CARBON	1K 5% 3W
	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON	1K 5% 1/6
R 18	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON	1K 5% 1/6
	R D 1 4 D B 2 H 3 R 9 J	RES. CARBON	3,9 5% 1/2
	RD14DB3D561J	RES. CARBON	560 5% 2W
	NO USE		
R 2 2	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON	1K 5% 1/6

PD35-10/PD35-10D C.I UNIT

(X81-1980-06)					
REF. NO	PARTS NO-	NAME & DESCR	I P T I O N		
C 1 4		PCB (UNNOUNTED) CAP. POLYESTER	0.047 5% 50 V		
D 1 4	RD15F(B2)	DIODE ZENER			
D 1 5	RD15F(B2)	DIODE ZENER			
P 1 3	E 4 0 - 0 6 7 3 - 0 5	PIN CONNECTOR	6 P		
P307		PIN CONNECTOR	7 P		
P308	E40-0873-05	PIN CONNECTOR	8 P		
P309	E40-0473-05	PIN CONNECTOR	4 P		
P310	E40-0473-05	PIN CONNECTOR	4 P		
P311	E40-0273-05	PIN CONNECTOR	2 P		
P 3 1 2	E 4 0 - 0 3 7 3 - 0 5	PIN CONNECTOR	3 P		
	2 S C 2 9 8 7 (R)	TR. SI, NPN			
Q 8	2 S A 1 2 2 7 (Q)	TR. SI, PNP			
Q 9	2 S C 3 O 6 6 (F , G)	TR. SI, NPN			
Q 1 0	2 S K 1 7 O (B L)	FET, N-CHANNEL			
R 8	R D 1 4 B B 2 E 8 2 1 J	RES. CARBON	820 5% 1/4W		
R 9	R D 1 4 D B 2 H 1 O 1 J	RES, CARBON	100 5% 1/2W		
R 1 5	R D 1 4 D B 3 F 1 O 2 J	RES. CARBON	1 K 5 % 3 W		
R 16	R D 1 4 D B 3 F 1 O 2 J	RES. CARBON	1K 5% 3W		
R 1 7	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON	1K 5% 1/6W		
R 18	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON	1K 5% 1/6W		
R 19	R D 1 4 D B 2 H 2 R 2 J	RES. CARBON	2.2 5% 1/2%		
R 2 2	R D 1 4 B B 2 C 1 O 2 J	RES. CARBON	1K 5% 1/6W		

PD18-10(D) SCHEMATIC DIAGRAM



CAUTION 1;

Condition of measurement.

CC VR → MAX.

CV VR → MAX.

OUTPUT → OPEN

OUTPUT SW → ON

OVP VR → MAX.

At measurement, the DMM

GND line is the + output terminal

(Front panel ⊕ or rear panel

⑤)

(In the circuit diagram, indicated with " ⊕ ".)

- A: Measured voltage obtained under measuring condition of CAUTION 1.

 (B): Measured voltage obtained under measuring condition of CAUTION 2.

 (C): Measured voltage obtained under measuring condition of CAUTION 3.

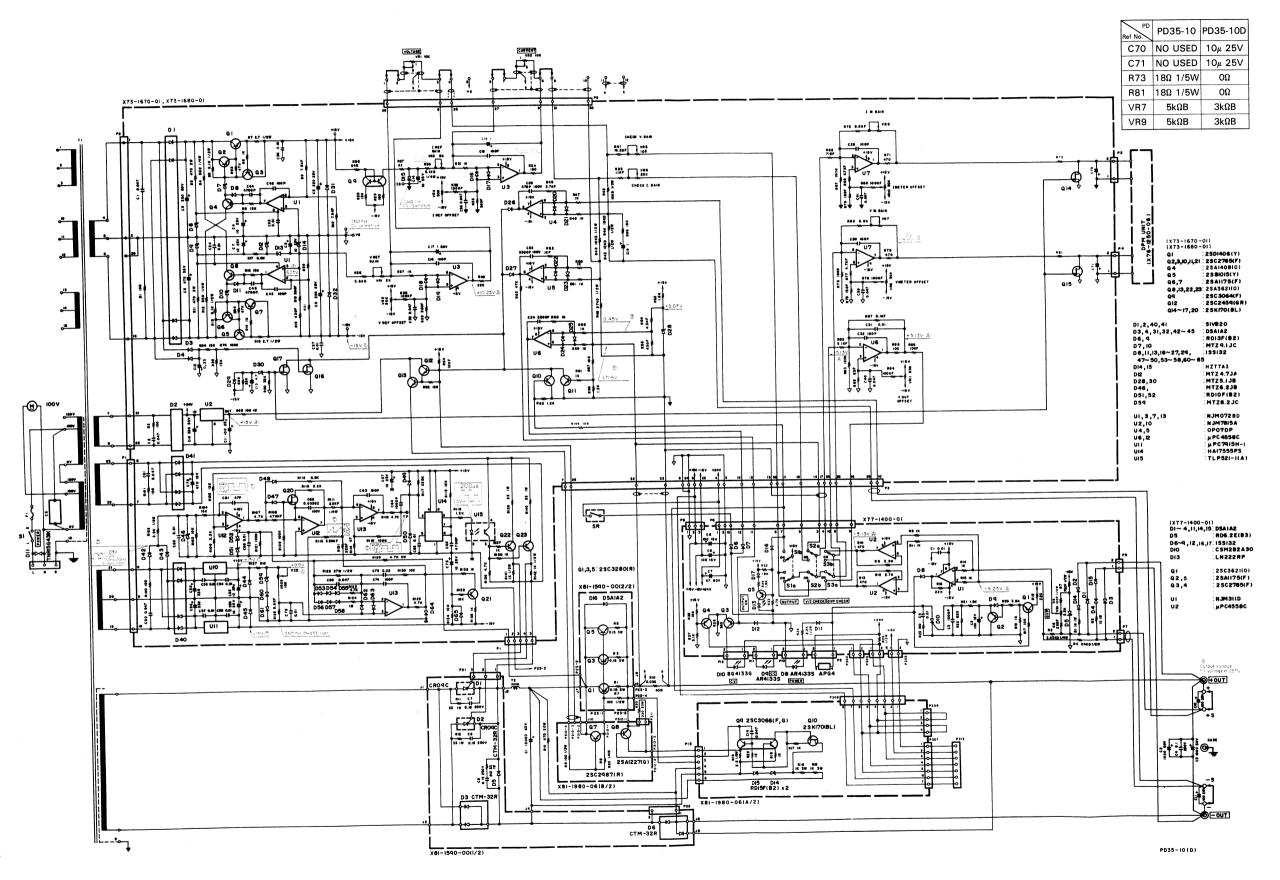
CAUTION 2;

Condition of measurement CC VR → MAX.
CV VR → MAX.
OUTPUT → SHORT
OUTPUT SW → ON
OVP VR → MAX.
At measurement, the DMM
GND line is the rear panel terminal board No. 11 (in the circuit diagram, conected to point "a").

CAUTION 3;

control circuit; (emitter of Q1-Q6))

PD35-10(D) SCHEMATIC DIAGRAM



CAUTION 1;

Condition of measurement.
CC VR → MAX.
CV VR → MAX.
OUTPUT → OPEN
OUTPUT SW → ON
OVP VR → MAX.
At measurement, the DMM
GND line is the + output
terminal
(Front panel ⊕ or rear panel
←⑤)
(In the circuit diagram, indicated with " ⊕ ".)

A: Measured voltage obtained under measuring condition of CAUTION 1.

(B) Measured voltage obtained under measuring condition of CAUTION 2.

(C) Measured voltage obtained under measuring condition of CAUTION 3.

CAUTION 2;

Condition of measurement
CC VR → MAX.
CV VR → MAX.
OUTPUT → SHORT
OUTPUT SW → ON
OVP VR → MAX.
At measurement, the DMM
GND line is the rear panel terminal board No. 11 (in the circuit diagram, conected to point "a").

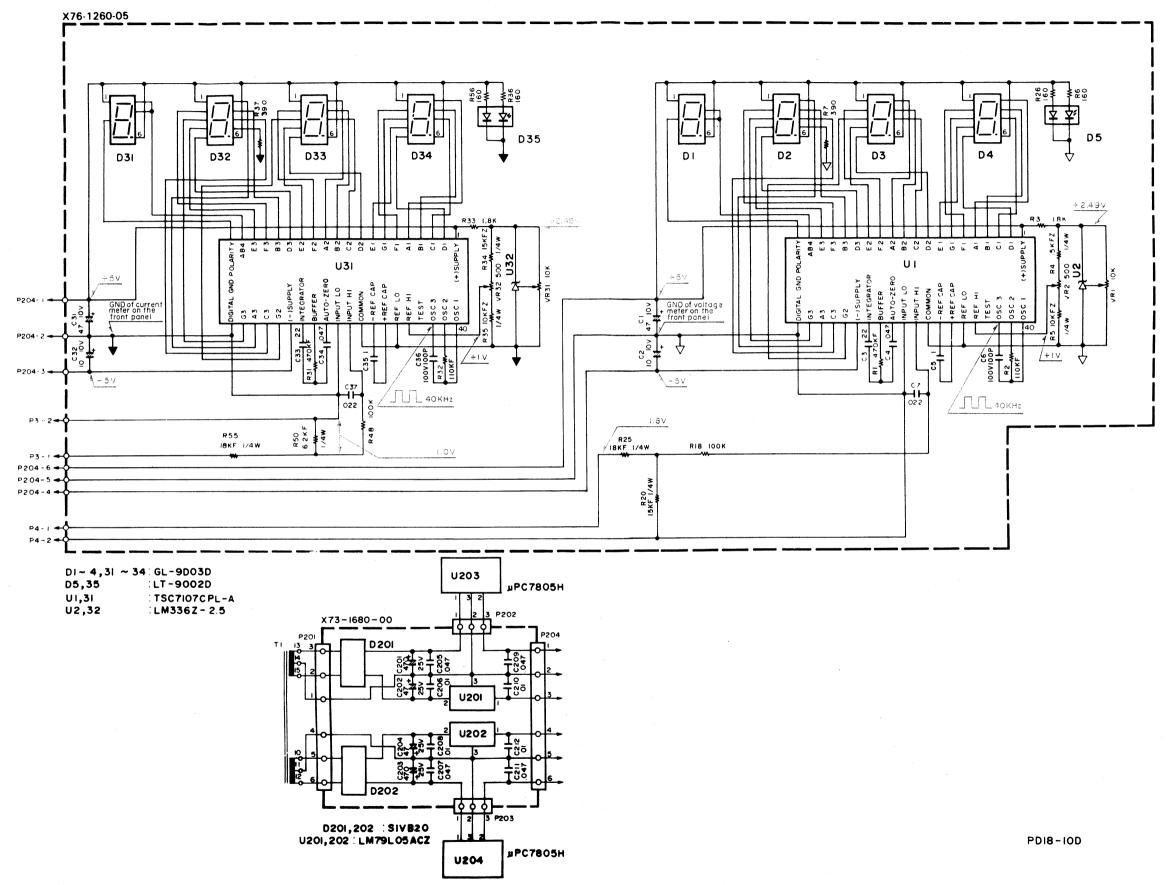
CAUTION 3;

CAUTION 3:

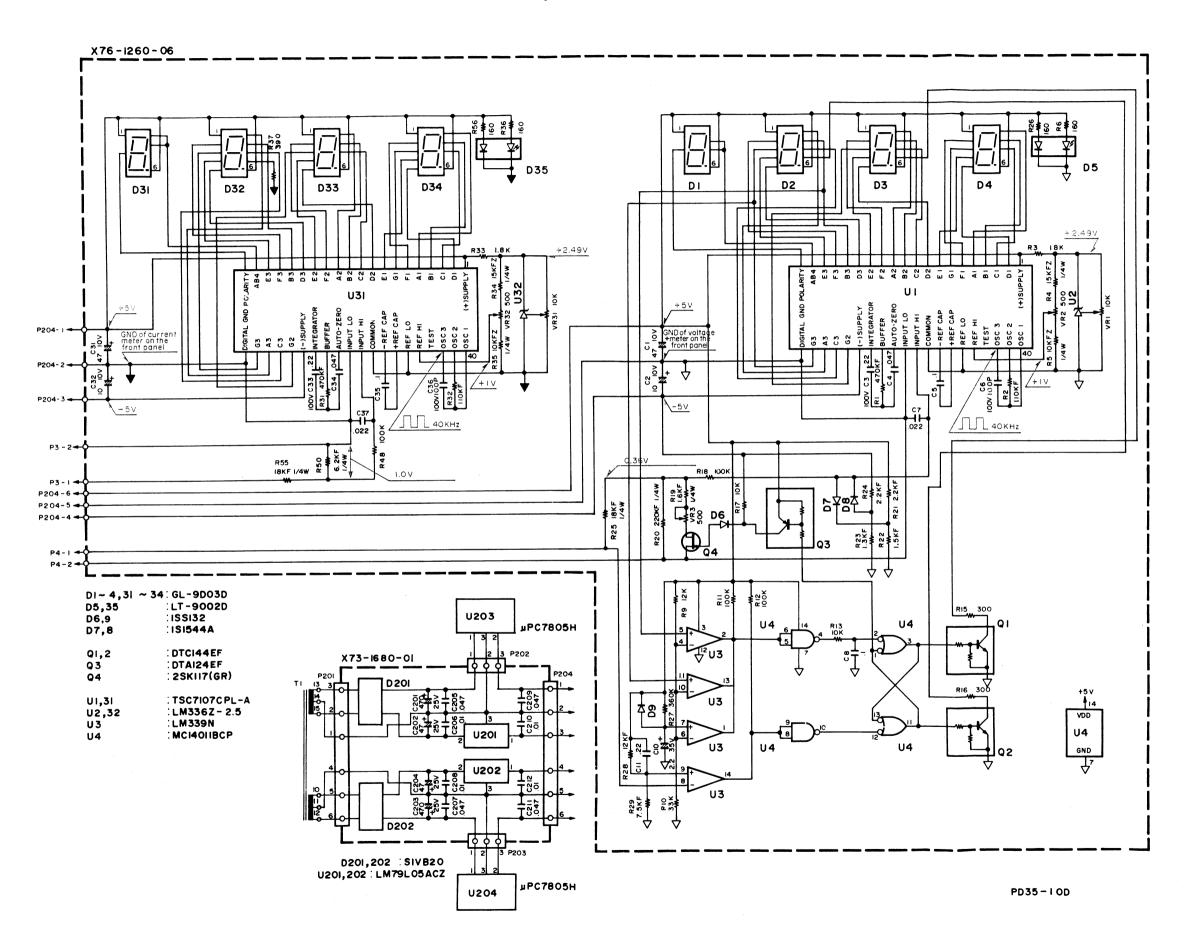
Condition of measurement CC VR → MAX. CV VR → MAX. OUTPUT → OPEN OUTPUT SW → ON OVP VR → MAX. GND for PHASE control ***

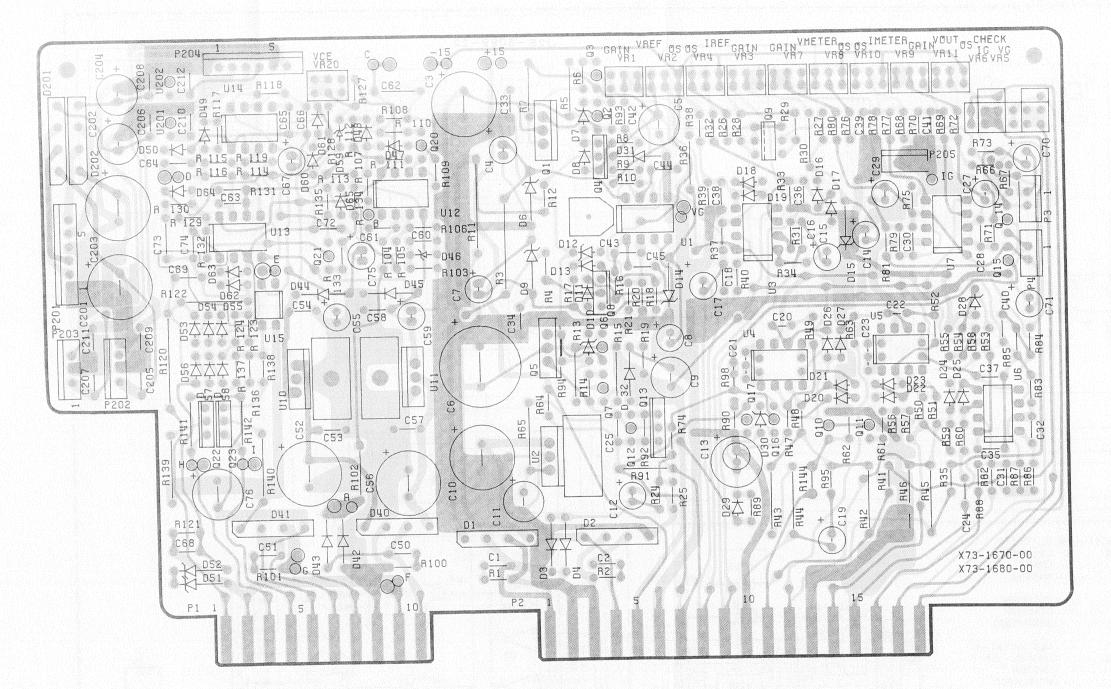
(GND for checking the phase control circuit; (emitter of Q1-Q6))

PD18-10(D) SCHEMATIC DIAGRAM

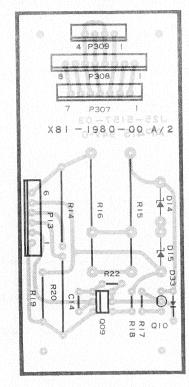


PD35-10(D) SCHEMATIC DIAGRAM



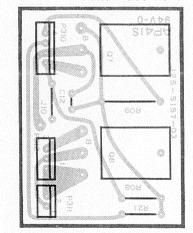


C.I UNIT (X81-1980 A/2)



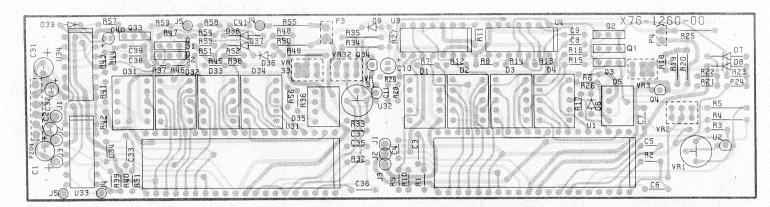
C.I UNIT (X81-1980 B/2)

Pattern side view

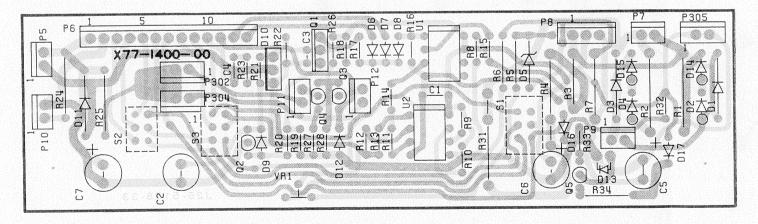


P.C. BOARD

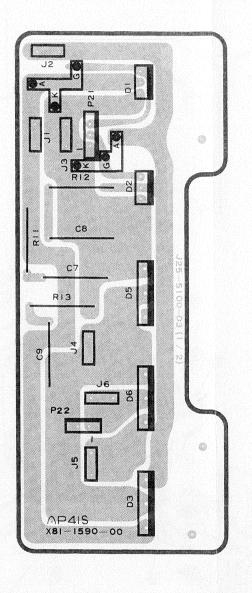
DPM UNIT (X76-1260)

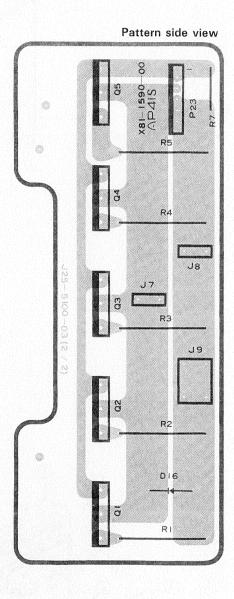


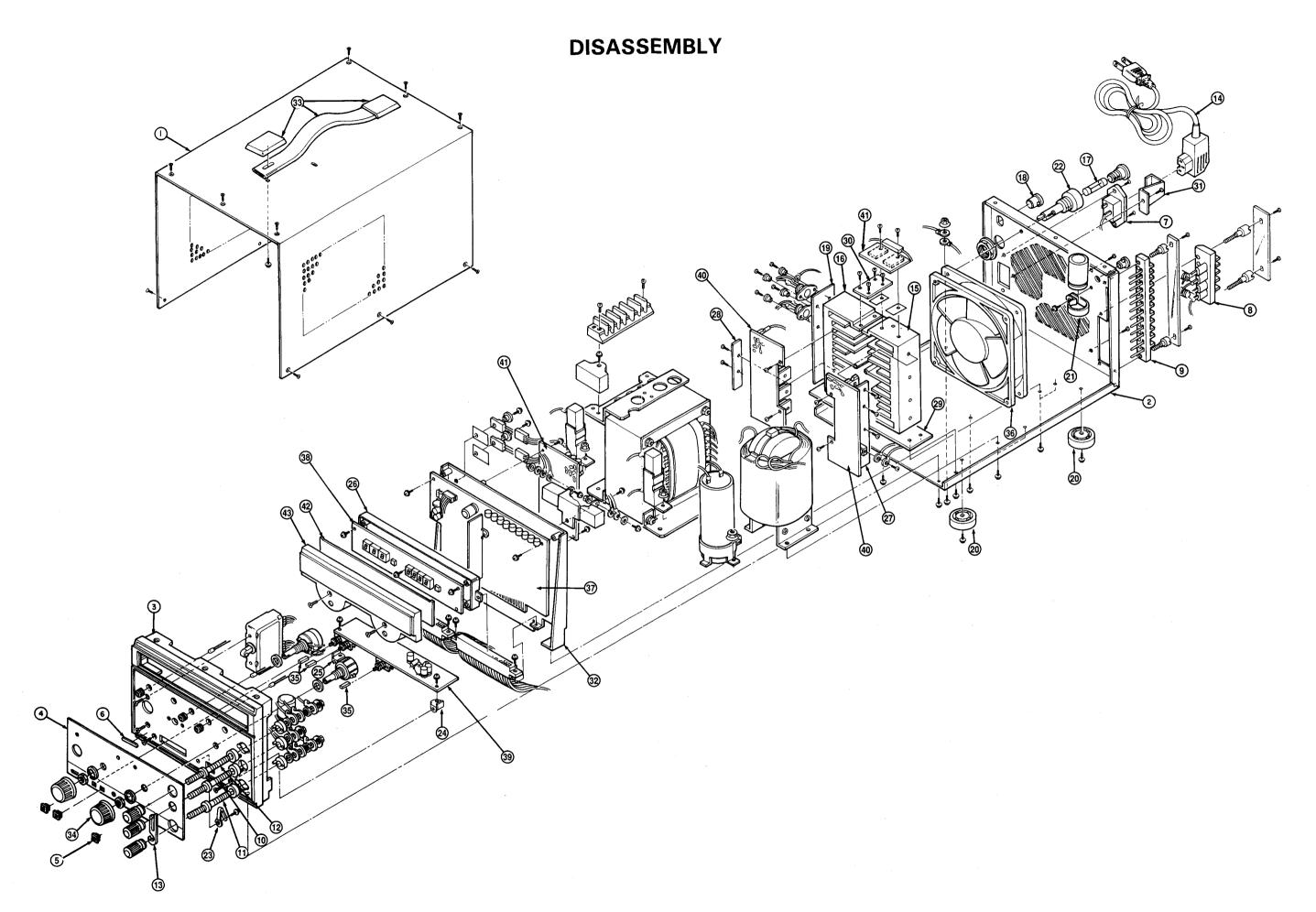
OVP UNIT (X77-1400)



RECTIFIER UNIT (X81-1590-00)







SEMICONDUCTORS

